

**OCTOBER, 1943**

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Vice-President and General Manager

**CHARLES DOWNES**  
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**FIELDS SERVED BY DW**

The publication in which shipper, carrier, receiver, warehouseman and equipment manufacturer meet on common ground to obtain and exchange ideas and suggestions for more efficient and economical distribution of raw materials and finished products. D and W is a clearing house of information for all who are interested in:

**SHIPPING** . . . . by air, highway, rail and water, of raw materials and finished products of all kinds, from points of origin to points of ultimate destination. D and W insists that efficiency and economy are as imperative in transportation of commodities as in manufacturing and selling.

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These trailers will be rationed under WPB Conservation Law M-100 and released to holders of PD-321 certificates. Contact us promptly for details concerning rationing of these trailers.

Our war contracts enabled us to keep intact our complete organization of highly skilled engineers, foremen and mechanics. This assures you the same high standard of construction that has made the name HERMAN the "buyword" for "the best".

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## Nesting the Birds That Drop the Eggs



Only a cartload of clods! Yet from that humble soil will soar the giants of the sky, sooner or later to lay their hard-shelled eggs and lead the way to victory.

On countless airfields, from commercial airports and civilian training stations to front-line bases in far-off corners of the earth, Case industrial tractors are pulling plows and other implements for the soil stabilization technique; pushing snow plows and rotary brushes to keep runways and areas clean; driving mowers to keep grounds well groomed and turf in trim; towing planes; operating cranes, loaders.

The extra strength and stability built into Case industrial tractors makes them "naturals" for all manner of mounted equipment, ranging from cranes with their overhanging loads to the tug-of-war with winches used for stump-pulling, hoisting,

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Case industrial tractors are built in four basic sizes with a wide variety of wheel and tire equipment to cover a weight range from 2500 to more than 10,000 pounds. Engines of the two larger sizes are available as self-contained, readily portable belt power units of 40 and

60 horsepower. For full information call your Case distributor or write the factory.

★ ★ ★

Case industrial tractors and power units are available to government agencies and private plants engaged in war work. Case engineering service is freely offered to such agencies and companies; also to others looking toward future developments that involve tractor power. If you have such power applications in mind, you are invited to get in touch with us. J. I. Case Co., Racine, Wis.



Power sweepers for Case tractors are built in two styles and sizes. Brush need not be removed for drawbar jobs.



Mowers for Case Industrial tractors have an all-mechanical power lift, also automatic re-lock of cutterbar after break-back.



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D and W, October, 1943—5

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## AT BAYWAY (*Elizabeth, N. J.*)

Here, 30 minutes from Manhattan, are 1,070,000 square feet of storage and manufacturing space, protected loading platforms for truck and railway, deep-water and inland-waterway docks, railroad and lighterage service. Here are live steam for manufacturing, the finest of loading and storage equipment, 100% sprinkler protection, low-cost insurance, one of the world's

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In spite of government demands and unprecedented shortages of warehousing and terminal space, we are making every effort to meet your requirements, and will be delighted to discuss with you just what is available.

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ELIZABETH, N. J., OR 17 STATE ST., NEW YORK

(Operated by Lincoln Tidewater Terminals)



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We realize that victory comes first, and that

storage, warehousing and deep sea equipment are one of the nation's biggest and most overburdened problems. We are glad to report that we are handling the largest volume in our career with the greatest efficiency in our history.

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BAYWAY  
TIDEWATER**



# WAREHOUSING



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## The Skyways and The Highways . . .



. . . Hold out a rosy promise to the post war transportation industry; each supplementing the other, each providing a medium that peculiarly meets the demands for speed and bulk.

In the coordination of land and air transportation mediums, Gerstenslager Company already has gained experience. This past year, under government contract, Gerstenslager has produced hundreds of small trailer units, designed to carry bomb loads from arsenal or ordnance base, on to the air field, and right up to the loading door of the huge bomber plane just before its take-off into enemy territory.

Likewise, larger mobile trailer units, in

peacetime, may well be adapted to transporting commercial cargoes from local truck terminals to freighter planes!

"Motaircargo" . . . yes, indeed, our present assembly-line war production is providing our engineers and craftsmen with experience that will be advantageously applied to developing the type of van and trailer bodies most needed at the end of the war.



*Right now, if you have a van or trailer unit that needs repair, consult us. We have established special facilities for the rehabilitation of worn equipment that must be made to last "for the duration".*

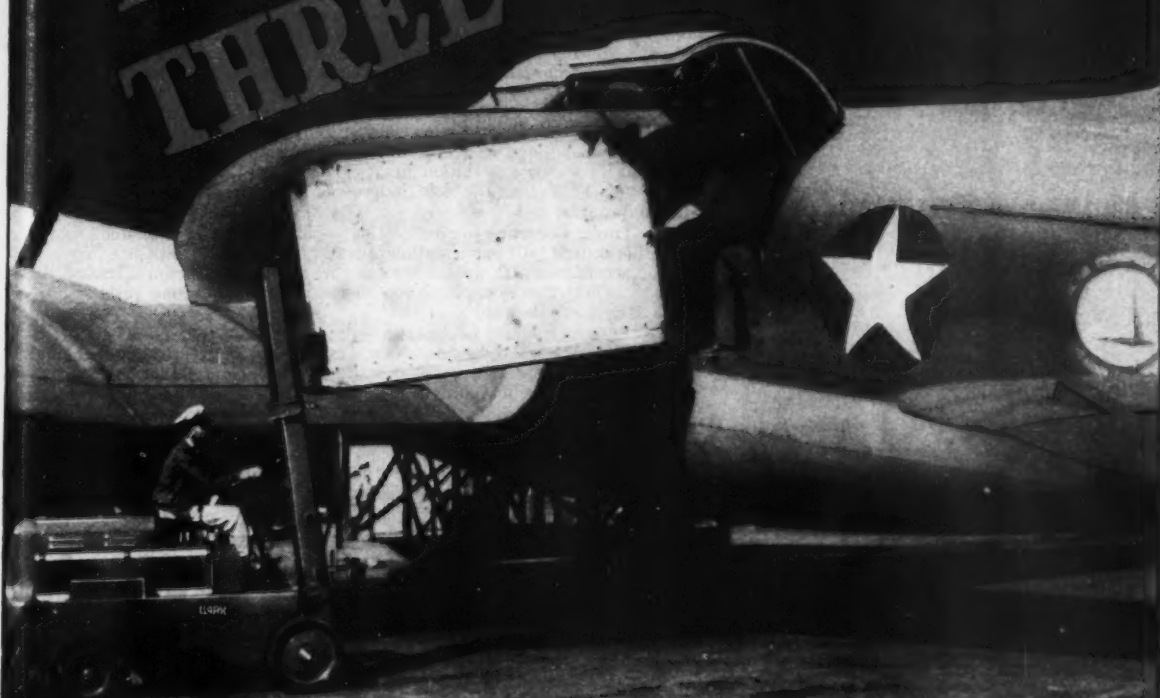


# GERSTENSLAGER CO.

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ONE  
TWO  
THREE



Whatever the material handling problem  
**CLARK FORK TRUCKS**  
speed deliveries — save manpower —  
reduce handling — in War or Peace

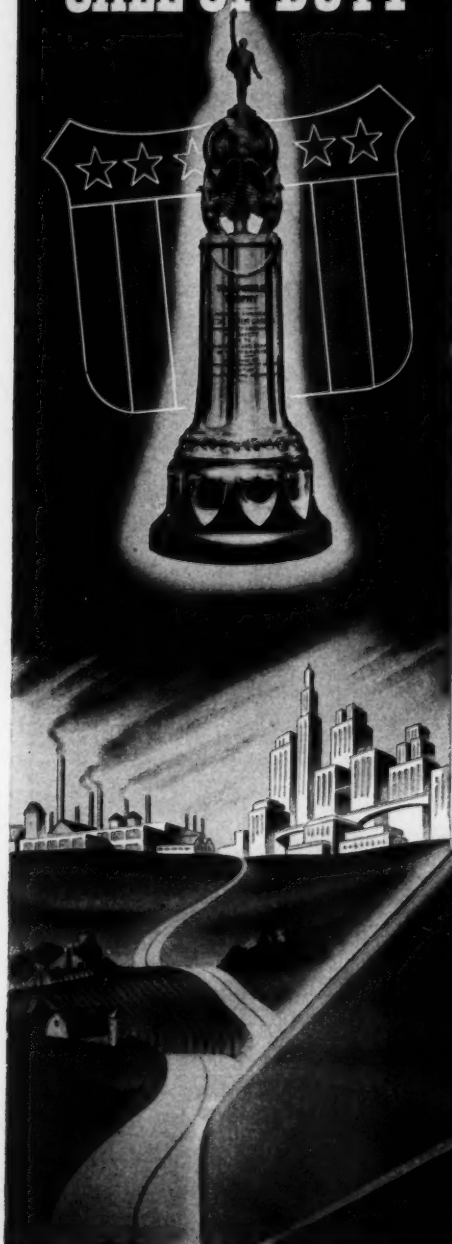
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BONDS

## CLARK TRUCTRACTOR

DIVISION OF CLARK EQUIPMENT COMPANY

BATTLE CREEK, MICHIGAN, U.S.A.

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ABOVE AND  
BEYOND THE  
CALL OF DUTY ★**



## ANNOUNCING THE SIXTH ANNUAL TRAILMOBILE TROPHY AWARD AUGUST 1, 1943 • • • JULY 31, 1944

*Presented to the trucking company with  
the best record of Safety, Service, Load-  
planning Improvement, and Preventive  
Maintenance.*



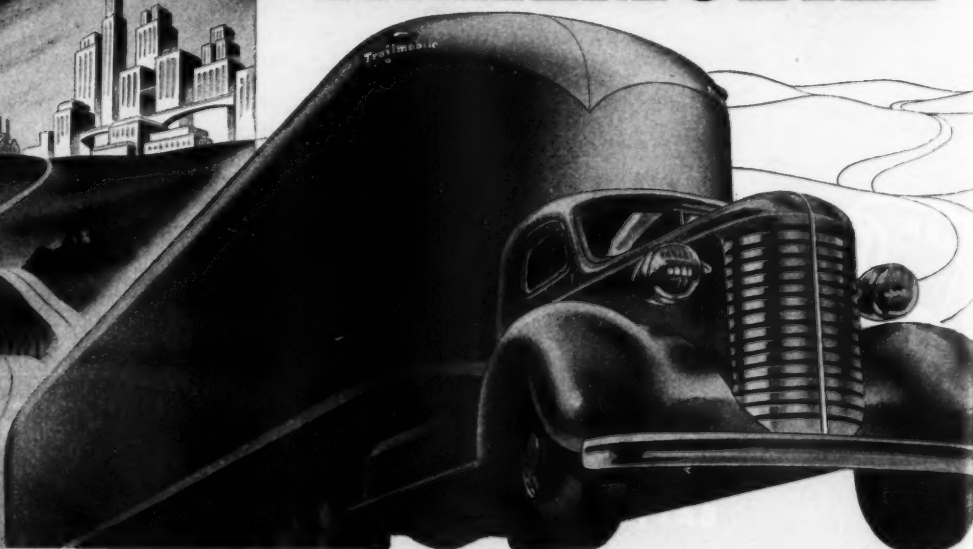
To promote safer, more efficient, more profitable highway transportation, The Trailer Company of America each year makes an award to the company showing the best record of safety in the operation of their equipment. This includes compliance with all state legislation and safety regulations, training of personnel, maintenance of equipment, and service rendered to the public on the highway. As stipulated in the contest rules last year, reports and supporting data on *Safety and Service, Load-planning Improvement, and Preventive Maintenance* must be submitted to the American Trucking Association in Washington, D. C. Qualified members of A. T. A. are the sole judges of the winner and Honorable Mention awards.

The Trailer Company of America invites all carriers, large or small to enter this contest. All participating operators who maintain their equipment in accordance with the contest rules are assured of a definite reward in terms of better service, public confidence, reduction of repair costs . . . and ledger sheets showing a profit.

The Trailer Company of America today is devoting the major part of its facilities to war production. New Trailmobiles, patterned from the grim demands of "get it there" war transportation requirements, embody many new features of design. New commercial trailers, incorporating these features, may be available for civilian use in the near future. See your nearest Trailmobile distributor or branch for information.

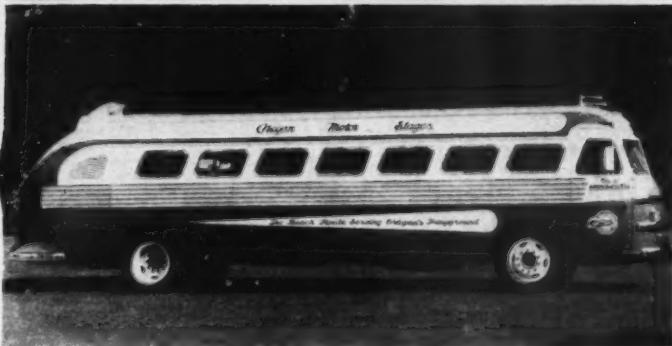
Write today for the "HOW TO WIN" folder, addressing the American Trucking Associations, Inc., Washington, D. C. or The Trailer Company of America, Cincinnati, Ohio.

# TRAILMOBILE





**IF IT  
ROLLS ON  
WHEELS  
IDENTIFY  
IT WITH**



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Rolling stock whether it "rides the rails" or the highways can do a constant selling job . . . if properly decorated and identified. Every truck, bus, railway locomotive and car offers thousands of miles of advertising per year. The space is free.

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# Speeds Material Handling ...for Victory!

## RE-POWER with READY-POWER

Gas-Electric  
Power Plant for  
Electric Truck  
Operation

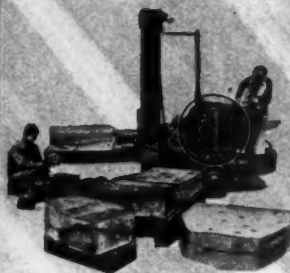
R-P power for electric truck  
operation, handles materi-  
als at lowest cost per ton.



Duker Fork Truck



Yale Crane Truck



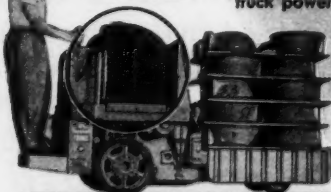
Hi-Lift Truck



Elwell-Parker Truck  
Steel Handling

Since 1924, thousands of R-P  
Units have been adapted by  
industry to their toughest jobs.

R-P replaces storage batteries  
and charging equipment—makes  
the electric truck completely  
mobile—free from limitations  
imposed by use of batteries for  
truck power.



Automatic Platform Truck

R-P power plants are good  
for the life of the truck—  
handle the loads quickly.

### Continuous Power

INDUSTRY TODAY needs Ready-Power more than  
ever before to handle materials faster, more econom-  
ically, and to speed up production to the wartime  
pitch. Ready-Power equipped trucks handle more  
loads per hour, per day, per year, than the same  
equipment battery powered. Ready-Power (Gas-Electric)  
Units convert ordinary trucks into trucks with higher peak  
performance because of the continuous flow of power.

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The Ready-Power Company does not make industrial  
trucks—but supplies the gas-electric power plants that make  
electric trucks do more work. Truck manufacturers furnish  
Ready-Power equipment on new trucks at your request—  
or you can get Ready-Power units to replace batteries  
now in operation, direct from The Ready-Power Company.

Write for information, mentioning  
type of new truck contemplated  
or make and type of trucks  
now being operated.



Clark Tractor



Mercury Tractor

# THE READY-POWER CO.

3849 Grand River Avenue • Detroit, Michigan, U. S. A.

# AIR-CARGO HANDLING

*Expedited By Shop Mule Tractors!*



**4 WHEEL  
A14 VICTORY SHOP MULE**

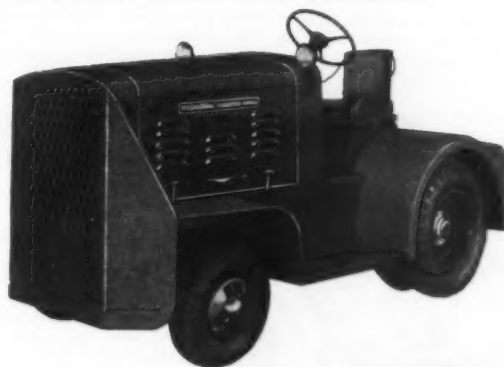
A general purpose tractor of medium heavy duty capacity designed to operate under tough conditions and in close quarters with its 90 inch turning radius. Heavy steel bumpers front and rear protect both driver and mechanism and also permit the tractor to be used as a pusher. Widely used by Airports, Marine Terminals, etc.

★ **4 STAR**  
★ **PERFORMANCE**  
★ **UNDER TOUGHEST**  
★ **WORKING CONDITIONS**

HEBARD SHOP MULES proved their worth two decades before Pearl Harbor! These sturdy tractors are proving indispensable today in the moving of aircraft in and out of hangars onto the runways . . . in the movement of Air Cargo from airport receiving depots out to the flying box cars. Powerful enough to tow a 70 ton clipper . . . small enough to maneuver in close quarters, such as stores departments, repair shops, etc.

## INTERNATIONAL HARVESTER POWERED

Famous Harvester Engines and all the facilities of the vast Harvester Organization for parts and service all over the world. These Victory Model Shop Mules are aiding the war effort in a thousand and one ways on land and sea. In daily use by Airlines, Marine Terminals, Railroads and Industries of every type. Built to stand the gaff of toughest usage, packed with power and *time-tested!*



**4 WHEEL  
J233 HEAVY DUTY SHOP MULE**

**CONSULT YOUR NEAREST I.H.C.  
INDUSTRIAL DEALER**

**OR WRITE DIRECT FOR LITERATURE**

Unexcelled for the hauling of airplanes . . . even the big heavy ships. Invaluable in moving seaplanes up wet slippery ramps from water to ground level. Rugged and powerful enough to tow the heaviest land planes. The J233 Shop Mule is powered with a six-cylinder I.H.C. Engine for smoothest pick-up. The A13 Victory Model Midget Shop Mule (not pictured) is a 3 wheel tractor designed to function in restricted areas. Turning radius 66 inch.

**W. F. HEBARD & CO.**

**2433 S. State Street, (16) Chicago**



# HYSTER MATERIAL HANDLING EQUIPMENT



## "HYSTER" 20 Pneumatic Tired Lift Truck

Fork type lift truck of 2000 lb. capacity. Being on pneumatic tires, it can operate in unpaved yards around plants and in storage areas, and can carry full loads at maximum speeds on floors or pavements. It has tilting, telescopic lift for carrying

and high piling either loose or packaged material. It is a compact machine suitable for use in close quarters being 36 inches wide, 71½ inches long (not including load arms) and 72 inches high.

The "HYSTER" Forty is a similar truck of 4000-lb. capacity.



## "HYSTER" 75 High Lift Fork Truck

A 7500-lb. capacity gasoline-powered utility lift truck applicable for use in warehouses and outside storage yards. The large pneumatic tires enable it to operate with ease and efficiency on graveled surfaces or rough roadways. Some of its outstanding features are: sturdy single-unit welded frame, hydraulically controlled tilting and lifting, increased driver comfort and safety, improved operator visibility, tapered rear end for increased maneuverability in close quarters and engineered accessibility for servicing. The telescopic lift permits high piling—120" lift—for increased storage capacity. Its four-speed reversible transmission affords wide range of speeds and power in either forward or reverse.



## "HYSTER" 150 15,000-lb. capacity Heavy Duty Lift Truck

For transporting and tiering heavy unit packages of any material, this big lift truck is ideal. Fast in every operation—travel, lift and tilt—it saves time as well as valuable space. Designed for use out-of-doors as well as in storage sheds and warehouses. The six large

pneumatic tires make for highly efficient operation on rough uneven roads and unpaved yards—has road clearance of 6½" under full load. Four operating speeds in either forward or reverse gives the right speed for any condition.

FACTORIES  
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PORTLAND 8, OREGON

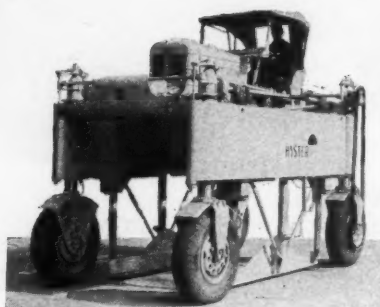
1840 North Adams Street  
PEORIA 1, ILLINOIS



Manufacturers of TRACTOR WINCHES, DOUBLE DRUMS, CRANES AND LOGGING ARCHES, STRADDLE TRUCKS, LIFT TRUCKS, KARRY KRANES

14—D and W, October, 1943

## THE COMPLETE LINE



## "HYSTER" STRADDLE TRUCK

The self-loading, self-unloading industrial truck for hauling materials of all kinds. Especially suited for handling loads of long material such as timbers, girders, pipe, etc. No delay

for loading or unloading as it picks up or deposits its load almost without stopping! Steering on all four wheels, it turns square corners and can be driven as easily and as fast in reverse as forward. 12,000 lb. and 30,000 lb. capacities. Several sizes in each for various load dimensions.

## "HYSTER" KARRY CRANE

The Karry Crane is a mobile general utility crane with traction wheels in front under the boom, and steering on a double

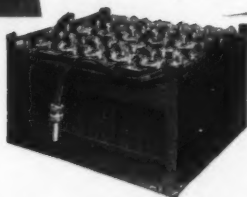
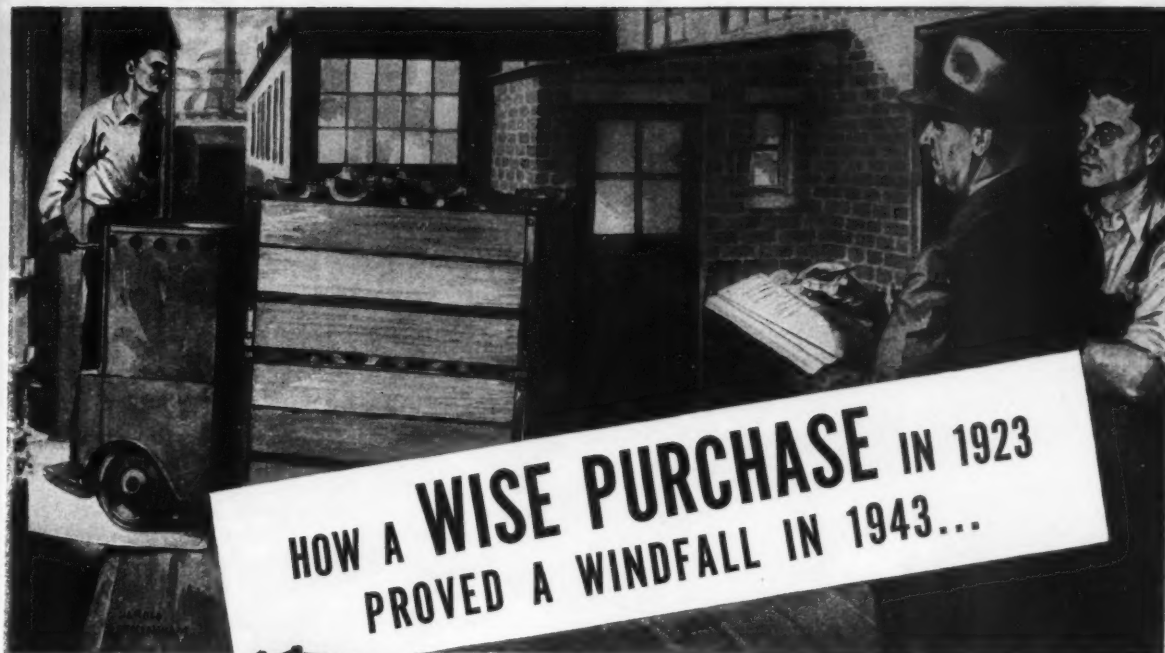
trunnion mounted wheel at the rear. This makes it highly maneuverable in crowded quarters and gives to the fixed type boom the effect of a swinging boom. It can be driven forward or backward at the same speeds. The quickly adjustable boom permits handling any type load, tall, long or bulky. Riding on six large pneumatic tires, it can go wherever highway trucks can go. Capacity is 10,000 lbs. with boom in high position.



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Don't assume you can't get equipment—inquire





### UNIQUE CHARACTERISTICS OF THE EDISON ALKALINE BATTERY

- ★ It is durable mechanically. High strength steel construction is used in the container, grids, pole pieces, etc. The electrolyte is a preservative of steel. It requires no renewal of separators throughout its long life.
- ★ It is foolproof electrically. It may be short-circuited, over-charged, over-discharged, or even accidentally charged in the reverse direction without injury.
- ★ It can be charged rapidly. It may be charged at full normal rate throughout the entire length of charge and is not subject to finish rate limitations. It requires no equalizing.
- ★ It withstands temperature extremes. It is not damaged by freezing. Free air spaces on all sides of all cells provide ventilation for rapid cooling under high temperature conditions.
- ★ It is free from ordinary battery troubles. It is not subject to sulphation, shedding of active material, buckling of plates, jar breakage or other common causes of battery failure.
- ★ It is simple to maintain. Merely charge adequately, add pure water, keep clean and dry.
- ★ Its tray assembly and cell connections are extremely simple.
- ★ Its life is so long that its annual depreciation cost is lower than that of any other type of storage battery.

A recent call for battery operating information from a war plant mystified our engineers, for we had no record of Edison batteries in this plant. When our Service Engineer called, he found the plant using a truck powered by a battery made in 1923.

### RETIRED IN 1937

This battery turned out to be one which had been reported scrapped in 1937. Actually, the truck and battery had been put in dead storage because the plant had been operating on a reduced schedule. The war had revived the need for the truck. The battery, found still serviceable, was a windfall.

### WINDFALL VALUES

Today many industrial truck users are finding windfall values in their wise purchases of Edison Alkaline Batteries.

They bought long life because it meant low cost, but long life also means dependability.

And so now, in wartime, when dependability is all-important, they have a source of power not subject to interruption by sudden or unexpected failure.

Some of the unique characteristics of Edison Alkaline Batteries which account for long life and dependability are cited in the column at the left.

EDISON STORAGE BATTERY DIVISION, THOMAS A. EDISON, INCORPORATED, WEST ORANGE, NEW JERSEY

# Edison

## ALKALINE BATTERIES



**THE CLEVELAND, COLUMBUS & CINCINNATI HIGHWAY, Inc.**  
 17 South High Street

DIVISION OF U. S. TRUCK LINES

**Columbus, Ohio**

*"Three C's are going places!"*

Look forward—  
 Ship safely via CCC HIGHWAY.

16—D and W, October, 1943

Don't assume you can't get equipment—inquire

# Editorials . . .

## National Highway Standards

**C**OORDINATION of air and highway facilities for the transportation of freight is in the public interest and definitely of benefit both to the airlines and highway carriers. But coordination is not enough. More efficient and economical distribution is impossible until the trucking industry has been emancipated from the chaotic, costly and unreasonable regional restrictions which seriously hamper its usefulness.

Common sense and public welfare demand that state traffic barriers should be revoked. Article I, section 10, of the United States Constitution stipulates that, "no State shall, without the consent of the Congress, lay any impost or duties on imports or exports." We are aware that the word 'imports' as used in the Constitution has been construed to mean articles imported from a foreign country only. We contend, however, that modern state highway barriers demonstrate that such a construction is unsound, first, because it encourages local restrictions harmful to the economic welfare of the United States, and, secondly, because it virtually subverts the basic intent of the Constitution as stated in its preamble.

Would it not be eminently practical and desirable to have all regional traffic regulations revised, standardized and codified into national law? Why shouldn't taxes and tariffs also be simplified and standardized nationally? Why shouldn't state laws governing the dimensions and capacities of motor vehicles be done away with entirely and uniform national standards established instead? Why shouldn't law enforcement and trade practices be the same in all sections of the country? Why shouldn't there be United States standards instead of petty regional restrictions that differ in every section? There will never be a better time than now to make the change.

Until these things are done, not only will air and highway coordination be difficult, but maximum efficiency and economy of distribution will be impossible.

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## Clocks and Calendars

**A** POSSIBLE post-war development may be international adoption of a 24-hour clock and a simplified calendar.

The 24-hour clock is already established. The Army, the Navy, the Merchant Marine and the Weather Bureau use 24-hour time, and most countries throughout the world have adopted it. All that would be necessary for its general use here would be public acceptance and a law making it mandatory in the same way that war time or daylight saving time was adopted. After all, any method of reckoning time, whether by clocks, calendars, moons, or events, is purely arbitrary and man-made.

Our present calendar, the Gregorian, has been in use since 1582. According to the World Calendar Assn., it

would be materially improved if it were simplified by rearranging the lengths of the months and equalizing the year's quarters into 91-day periods. Each quarter would begin on a Sunday and end on a Saturday. A certain date of the month would always fall on the same day of the week. Dec. 31 would become Dec. W, year-end day, an extra Saturday, thus giving each year its full complement of 365 days. Dec. 31, 1944, for example, would not be Sunday, Dec. 31, but rather Dec. W, and the day after would be Sunday, Jan. 1, 1945. The problem of Feb. 29 would be taken care of by having an extra day in June to be known as June W, or leap-year day.

Fourteen governments are understood to have approved the reformed calendar. In the United States the National Education Assn., various scientists' societies, women's clubs and state chambers of commerce have endorsed it. The arguments in favor of it sound plausible. Indeed, a new calendar for the post-war world might be an excellent way to start a new era.

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## Freedom and Security

**W**E all want a better world. But a better world cannot be achieved by wishful thinking or government edict. No declarations of statesmen, or stipulations of international treaties, or enactments of legislation have any power whatsoever to establish security or to guarantee the so-called four freedoms. In the future, as in the past, freedom and security, whether personal, political, religious or economic, must be cherished and re-secured by each generation. No earthly power can guarantee them.

Freedom and security mean different things at different times to different people. There is nothing absolute about either. Freedom is neither a continuous state nor an invariable quality. It is relative; conditioned by other things and other qualities. Security, likewise, is neither permanent nor stable. We are secure as individuals and as a people only so long as we are willing and able to defend our security.

In the past, Americans have known what it is to enjoy a fuller measure of freedom with security than most people. We can do so again, despite the changed world in which we live. We can make America better for ourselves and our children, if we concentrate our talents, our energies and our resources for that purpose. But we cannot reform and succor the whole world at the same time. Let us be practical and put our own house in order.

If we want freedom and security, we must insist that our elected representatives formulate practical policies consistent therewith, and we must be willing to do what is necessary to make those policies effective. Government of the people, by the people and for the people means *all* of the people must practice it *all* of the time. That is part of the price of freedom and security.



# Should Motor Carriers F

**T**HE question of whether motor truck operators will be permitted to fly air cargo is not one that can be answered "sooner or later." It will have to be settled as soon as the war is over. It should be answered right now.

Applications for air cargo lines have been filed with the Civil Aeronautics Board by a number of motor carriers. These companies, the operations they propose and the routes they want to fly are shown in the accompanying table. Other applications are being filed almost weekly. Motor carriers wanting to fly air cargo range in size from nation-wide operators to small local trucking companies. They all want to get into a business that they know very little about and in which there is no assurance that they can carry on successful operations. Not one of these applicants has been in the airline business. Moreover there is no assurance that their applications will be granted nor how long it will be before their cases will come up for hearing by the Civil Aeronautics Board.

If the motor carriers would only realize that their great opportunity in the air cargo field is to coordinate ground and air transportation; to really sell their services in a way they have never done before, not one of them would think about actual entry into air transportation as such. The airlines do not want to go into the trucking business nor into the bus business and yet someone is going to have to bring cargo and passengers to them and take cargo from airports to shippers. No one can do it better than the motor carriers.

The motor carriers as a class, have always operated under a sort of inferiority complex. They have always been too prone to copy the bad habits of the railroads. They have always been too rate conscious and not enough service conscious. If they will now sell motor service for all it is worth there will be so much business that they can safely leave the actual flying of the air cargo to the airlines. Perhaps one reason for the motor carriers' past attitude has been due to what they went through in developing.

In 1910, there were only 10,000 motor trucks registered and they were mostly used in the cities. By 1920, however, over a million were registered, and, though most were still used inside cities, quite a number were engaged in intercity and other over-the-road service. So by 1920, a new industry of great possibilities had really started to grow. There was a latent demand for the kind of service the truck could render. At the same time there was an expanding intercity use of the private car, thus creating an effective demand for highway improvements and thereby causing the provision of facilities which shippers or motor

**A**IR and motor carriers are naturally complementary to each other, and the motor carrier industry, if it will but recognize it, is now in a position to profit from its strategic coordinating position in the transportation set-up of the future if it sells itself properly . . .

truck operators could not have brought about had they stood alone.

The first World War greatly stimulated motor transport development. Such an extraordinary burden was imposed on existing transportation facilities that the truck was more or less forced to carry a share. The trucks available at that time were heavy, clumsy in design, and poorly sprung, with solid tires and inefficient power plants, and were costly to operate. By 1920, trailer combinations, which have proven to be such a great boon to the industry, had found only limited use in the city field. Nevertheless, with rail service seriously slowed

down in vital spots and with rail rates at a high level, the truck of the first World War period could and did give a limited but beneficial service to shippers. The war situation supplied the spark and the industry needed no further prompting. In the early twenties, conditions changed. The attitude of the railroads which had looked upon the trucks with general friendliness as feeders changed to one of increasing hostility.

Then came a period of largely uncontrolled development for the motor carriers. A period from which they have never really recovered. Shippers welcomed a new service and many quickly

Someone has to bring cargo to the airlines. No one can do it better or cheaper than the common carrier motor operator. There is no reason why a motor carrier should go into the air for business. There will be plenty on the ground in the increased pick-up and delivery business in a coordinated motor and airline service. With the increased use of air cargo the type of handling shown in the photo will have to be eliminated. Handling operations will have to be mechanized for efficiency and economy.

(Courtesy Curtiss-Wright Corp.)





# rs Fly Air Cargo?

**T**HERE are motor carrier operators who could do a better selling job for air cargo than is being done today, and the sooner the airlines realize the possibilities of coordination with such carriers the better it will be for them and also for the shipping public . . .



By JOHN H. FREDERICK  
*Air Cargo Editor*

realized in what ways they could pit motor carriers against railroads and against each other. Some shippers and some truck manufacturers ruthlessly exploited the industry which had not yet found its feet. Motor carrier operations commonly were conducted on a hand-to-mouth basis and with a short-sighted disregard of costs. Operators started and failed, the industry turnover was heavy, and the losses, individually small, amounted to a large sum annually.

Shippers were in the dark as to their competitors' rates or even what their own rates would be for any length of time; private motor transportation was

rates were severely cut, particularly after the general business depression revealed the vulnerability of the rail position; and business standards suffered.

Large motor truck operators, reluctant for a long time, finally threw their active support to Federal regulation. Smaller carriers, generally less articulate, were either indifferent to or opposed to Federal regulation; or, as was true in the case of a great many very small operators, did not know such regulation was even proposed until or after it had been enacted in 1935.

The industry had only partially grown up by 1935. Its dynamic growth had

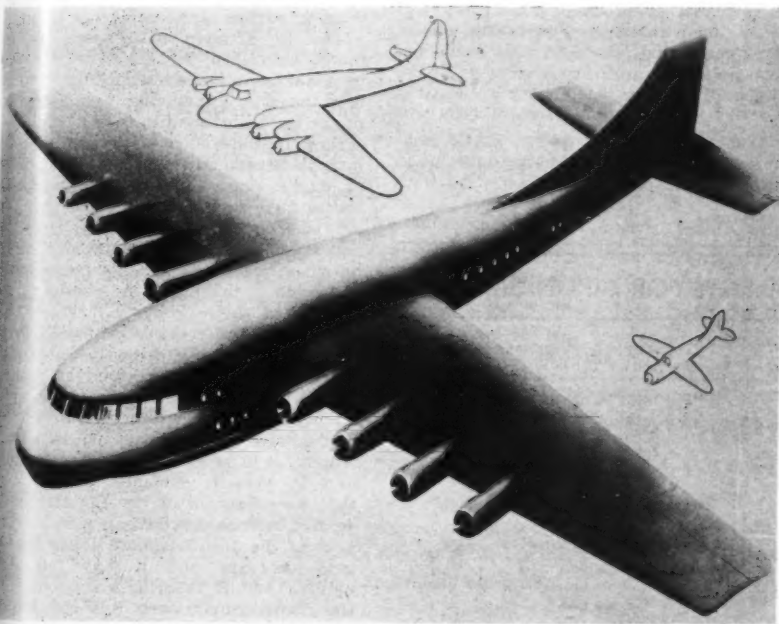
carriers had developed, under a free hand, in deadly competition with rail and some branches of water transportation. Though these carriers served many sparsely settled areas, they developed most extensively where the major flows of traffic occurred. This meant that most motor carrier routes paralleled the rail lines.

In 1935, the trucking industry, as the result of its virtually uncontrolled development, faced the task of working out satisfactory rate structures and of straightening out badly entangled and often vague and uncertain operating rights, as well as a large number of related but lesser tasks. Eight years of Federal regulation, aided in some cases by more effective State regulation, have accomplished much in these directions.

Natural differences in the characteristics of the various members of the trucking industry continue; but if the motor carriers will not attempt to function in fields beyond those indicated by their natural aptitudes, the industry, still dynamic, can become the greatest coordinating force in the history of transportation. It is only natural that it should resist any efforts to circumscribe its field of operations; in varying degrees it has tried to "coordinate" its services with those of the railroads. Sometimes this has been successful but more often not, because it was dealing with a competitor.

Air transportation is not the same sort of competitor, it is a brand new type of transportation service which needs the motor carrier. Air and motor carriers are naturally complementary to each other, and the motor carrier industry, if it will but recognize it, is now in a position to profit from its strategic coordinating position in the transportation set-up of the future. As things now stand, the Civil Aeronautics Act would have to be amended to permit the entrance of surface carriers into the air transport field and there is little to indicate that such a change will be made in the near future.

Controlling the operation of air transportation by other types of carriers is



This is the first picture that has been released of Henry Kaiser's giant cargo plane, as depicted by *Mechanix Illustrated Magazine*. Now being built by the Hughes Aircraft Co., Culver City, Cal., it is  $2\frac{1}{2}$  times the size of the biggest airplane ever built. It is 218 ft. long, with a wing spread of 320 ft. and weighs 200 tons. Shown in proportion to the B-17 Flying Fortress (top) and the P-47 Thunderbolt (right), the flying boat will carry 60 tons of cargo. Equipped with eight engines, it has a fuel capacity of 8000 gal. and a cruising speed of 174 m.p.h. Three of these planes are now being built, one for non-flying tests this winter.

(Acme)

also growing and contributing to the difficulties in which rail, motor, and water carriers were becoming enmeshed. The trucking industry got more and more out of hand; motor rates often were depressed to uneconomic levels and rail

made it a substantial but unruly member of the transportation family. It had disappointed the railroads, which then looked upon it, as some of them still do, as inherently a short-haul and feeder type of transportation. Instead, motor

the so-called "second proviso" of Section 408 of the Civil Aeronautics Act of 1938. This states: "That if the applicant is a carrier other than an air carrier or affiliated therewith within the meaning of section 5(8) of the Interstate Commerce Act, as amended, such applicant shall for the purposes of this section be considered an air carrier and the Board shall not enter such an order of approval unless it finds that the transaction proposed will promote the public interest by enabling such carrier other than an air carrier to use aircraft to public advantage in its operation and will not restrain competition." (Italics supplied for purpose of emphasis by the author.)

A strong suggestion of the CAB's probable attitude in passing upon applications for certificates of public convenience and necessity by carriers engaged in other forms of transportation was contained in the American Export Airlines decision handed down in July, 1942. In this case the Board denied control of American Airlines to American Export Lines, a steamship company, and asserted that "... this proviso (in Section 408) is extremely restrictive and only these limited air transport services which are auxiliary and supplementary to other transport operations, and which are therefore incidental thereto, can meet the conditions laid down by that proviso."

In a separate opinion Mr. Oswald Ryan, member of the CAB, stated that: "a construction of the Act which rigidly limits the participation of a surface carrier in the air transport field to cases where the surface carrier is enabled to use aircraft in its own operation to public advantage is in harmony with the well-

established preexisting Congressional policy." In a second opinion on this same case, rendered in January this year, the Board said that: "the conclusion that there exists and has existed for many years, a prevailing Congressional intent that the various forms of transportation should be mutually independent is well documented by legislative history."

The Lea-Bailey Bill, now being considered by various Congressional committees, proposes revision of the Civil Aeronautics Act but in no way weakens the provisions contained in Section 408 of the present law. In fact, it strengthens the CAB's control by giving it supervision over contract carriers or non-scheduled operators which heretofore, have not required a certificate to start operating. In fact, all that has prevented several motor carriers from entering the unscheduled air transportation of cargo within the past year or so has been their inability to obtain equipment. It looks now, however, as if by the time equipment is available, contract operators will be just as subject to the CAB regulations as the scheduled carriers.

An undercover, but powerful fight by railroad, steamship, bus and truck lobbies to alter the Lea-Bailey bill in such a way as to give surface carriers a more advantageous position in endeavoring to enter the air transportation field is already going on. When this bill comes up both in the Senate and House in a short time, the first real battle between surface and air carriers will take place. This is a battle long anticipated by the airlines.

The two decisions of the CAB, mentioned above, have been hailed by some in the air transportation industry as indi-

cating that the Board will be careful to restrict air transportation in all its phases to the airlines and not permit other types of carriers to enter the business as a side line. But, since the Board has been known to reverse itself on important matters, others are not so hopeful that a definite policy has been laid down. In fact there is really no unanimity of opinion in airline, legal or government circles on what may be the chances of the motor carriers succeeding in their efforts. Some believe that the door is shut and may even be slammed tighter by proposals now pending in Congress which, if passed, will prohibit ownership or operation of air transportation facilities by ground carriers of any type, either directly or indirectly.

Others hold the view that if motor carrier air routes are properly laid out and coordinated with the carrier's surface lines, there are some chances of success in obtaining the right to operate in the air. It will, however, be rather difficult for a motor carrier to prove that it needs to use aircraft for the advantage of the public in its operations and that such use will not restrain competition particularly when there is hardly a city or town proposed to be served, at least in present motor carrier applications, that is not already receiving airline service or will not have it under pending airline applications.

The Department of Justice has already petitioned the CAB to intervene in a number of proceedings pending before the Board involving new route applications by ground carriers, including several of those shown in the table, and it is believed that they will intervene in every single application for airline routes filed by a railroad, steamship, bus or truck line in order to assure that anti-trust laws are not violated. The Department of Justice has revealed that its action is taken for the reason: "that because of their property interests, private parties to the proceedings are not primarily concerned with the substantial public issues involved, that the Department of Justice is the only governmental agency charged with the duty of investigating complaints with respect to restraints of competition and monopolies and to present evidence thereon; and that participation of the Department of Justice in such proceedings is in furtherance of the anti-monopoly policy of Congress as expressed in the Civil Aeronautics Act of 1938, as amended, which the Board administers, and the Federal anti-trust laws which the Department of Justice must enforce."

There is absolutely no reason why a motor carrier should go into the air for business. Certainly there are no indications that the development of air cargo transportation by the airlines would take such volume from the motor truck lines that they should be entitled to go into the air cargo business in self-defense. The airlines will take some business, but it will be gradual, and it will surely be more than offset by the normal

(Continued on page 78)

## MOTOR CARRIER APPLICANTS FOR AIRLINES

| Name of Company                  | Service Proposed*       |
|----------------------------------|-------------------------|
| All States Freight               | Mail, Cargo             |
| Black Hills Trans. Co.           | Mail, Passenger, Cargo  |
| Brady Transfer & Storage Co.     | Cargo only              |
| Coastal Tank Lines               | Liquid cargo only       |
| Willis Day Storage Co.           | Cargo only              |
| Denver-Chicago Truck Co.         | Cargo only              |
| W. J. Dillner Transfer Co.       | Cargo only              |
| Freight Flite, Inc.              | Mail, Cargo             |
| Frisco Transportation Co.        | Cargo only              |
| Arthur W. Glase                  | Cargo only              |
| Great Lakes Storage & Moving Co. | Cargo only              |
| Keeshin Air Freight              | Cargo only              |
| Knowles Vans, Inc.               | Cargo only              |
| Marion Trucking Co., Inc.        | Mail, Passengers, Cargo |
| Midwest Haulers, Inc.            | Cargo only              |
| Milky Way Transport Co.          | Cargo only              |
| Mutual Trucking Co.              | Cargo only              |
| Pierce Auto Freight Lines        | Mail, Passenger, Cargo  |
| R. B. Freight Lines              | Mail, Passenger, Cargo  |
| Ringsby Truck Lines, Inc.        | Cargo only              |
| Schreiber Trucking Co.           | Cargo only              |
| Shawmut Air Freight              | Cargo only              |
| Southwestern Freight Lines       | Cargo only              |
| B. M. Stuart and Sons            | Cargo only              |

\* Routes applied for by these applicants may be obtained from the Civil Aeronautics Board or from D and W on request.

# AMERICAN TRUCKING ASSOCIATIONS AIR TRANSPORT ASSOCIATION

## A THREEFOLD ARGUMENT WHY AIR AND TRUCKING ASSOCIATIONS SHOULD UNDERTAKE COORDINATION OF THEIR INDUSTRIES NOW FOR MORE EFFICIENT AND ECONOMICAL POST-WAR DISTRIBUTION

*by H. S. Webster, Jr.*

**M**OST business executives, including the airline operators, agree that the airplane will not supplant all other forms of transportation. They believe it will only supplement the others and we agree with them.

There seems to be no agreement, however, on the future limitations of air transportation. The plane manufacturers are apparently able to build, and the airlines ready to fly, planes that were only a dream before the war—planes with equal or greater than freight-car capacity.

If or when such planes are available, the commodities they carry will be classified as air cargo, not express. Consequently, the shipper or receiver will demand the right to choose his own carrier as he is now privileged to do when shipping by highway, rail or water. He must be free to use his own motor equipment to pick up or deliver at airports, or to choose a local carrier for that purpose.

Likewise, the for-hire motor carrier must be free to pick up and deliver to any airline that he or his local customers choose to use, if the airlines hope to expand beyond the "express" category.

It is only a coincidence that the airlines and the motor carriers refer to their respective associations as ATA but no more natural tie-up could have been conceived by design. Hence, the three following suggestions.

### 1. Coordination is in the public interest.

(a) Because it utilizes established local carriers, thereby making possible immediately more efficient and economical distribution of cargoes on a national and international basis.

(b) Because firms and individuals may continue to do business with their local carriers who are familiar with local conditions and possibilities.

(c) Because it will scatter earnings and profits throughout many communities and thus tend to increase the buying power of such communities, which, in turn, will help to dissipate monopolistic influences.

### 2. Coordination is of practical benefit both to air and motor carriers.

(a) Because it will make unnecessary large capital investments by the airlines in ground equipment, pick-up services and facilities, personnel training, local sales promotion, etc.

(b) Because it will enable highway carriers to extend their present services and to develop new ones to offset possible loss of some business to the airlines.

(c) Because it will prevent costly and destructive competition between air and highway carriers, which, irrespective of the outcome, would be detrimental to both and also to the public.

### 3. Coordination is in the interest of free enterprise in the best sense.

(a) Because, if carried out with efficiency and economy, it will demonstrate anew in many ways the practical value of the free enterprise system.

(b) Because it will afford an opportunity for private initiative, and more enticing rewards for special abilities and efforts.

(c) Because it will strengthen, by uniting, two of the country's major transportation systems and enable them to pool their resources against the encroachment of political control of private enterprise.





WE have heard a lot about "globular war" and "globular strategy," and, recently, one of the radio commentators used the phrase "planning for the planet." It is a fascinating, modern phase, and proves conclusively that, in our thinking at least, distance is no longer the barrier it used to be to economical distribution. More and more people are now thinking in terms of distribution worldwide.

It may take a little time before this idea is accepted generally in its fullest sense, but we can well afford to take the long range view in our planning for the future, especially in connection with air transportation, while being practical in dealing with immediate problems.

Space ships, which a few years ago were only ideas in comic strips, have become realities. To-day the stratoliner, the large cargo plane, the flying wing, etc., are all actually in operation.

In the not too distant future, we will

By MATTHEW W. POTTS  
Materials Handling Editor

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• Motairhandling has been defined as "the mechanical handling of goods in distribution between motor and air carriers." See *D and W*, Aug., 1943, p. 15.

be thinking in terms of more economical distribution by air, and air ships and planes will be built to meet the more extensive requirements of air cargo and air passengers. The size of those planes will be much larger than anything we think of at present. In all probability, they will provide sufficient cargo space so that materials handling equipment can be run right into the plane. Unit loads will be handled by mechanical equipment, cargo loads will not have to

be distributed as carefully as at present, and the necessity of tying down and fastening the loads to prevent shifting in transit will be eliminated, because the planes may be able to sail through turbulent air currents without having cargoes shift.

However, regardless of future developments, it is necessary to-day for us to deal with practical problems in order to facilitate the better use of present plane construction. While a lot has been done to reduce the travel time of planes from one airport to another, too much time is being lost loading and unloading planes under present operating conditions.

In the majority of cases, cargo is still handled manually rather than mechanically. Packages that can be handled are limited as to size and weight, because of floor load capacities and size of openings in the plane's fuselage.

We will have to start immediately to consider better handling methods in planes now in operation, and there is no reason why this cannot be done at once. Without much difficulty, it would be possible to build cargo planes with hoisting mechanism similar to that used in the bomb bays for elevating bombs. Instead of bombs they could elevate individual containers and anchor them into the plane. Or, it would be possible to use overhead monorails in the top of the fuselage, letting these monorails be the strength members of the fuselage and, at the same time, serve as tracks on which monorail hoists could travel for raising the load into and out of the plane, and for distributing it the length of the fuselage.

Larger doors should be provided in present planes. It should be possible to go into the plane from both sides, so that cargo may be worked from both sides, or large packages elevated and turned by using both doors. These packages could be elevated either with overhead electric hoist arrangements or by fork trucks, portable cranes, or other mobile units.

There is no doubt that present ships are limited as to the size and weight of packages they can handle with safety and, therefore, a lot of the present cargo is in small packages. When these have to be handled individually, portable belt

## Handling Suggestions

SOME engineers and operators, the materials handling editor of *D and W* says, "are still thinking in terms of present transportation methods, and are considering air cargo as an adjunct thereto, whereas, they should be thinking in terms of air cargo, and planning to revamp other ways of handling and transportation in order to facilitate and coordinate them with air cargo methods."

"Truck, trailer and straddle truck manufacturers, and other highway equipment producers, should seriously consider definite standardization of platform height, the use of elevating end-gates on trucks, trailers, etc., to lift loads from the ground to the truck bed, and also from the truck bed high enough to service planes. In some instances, the bed of trucks will have to be equipped with roller conveyors so that heavy loads can be transferred directly from truck to plane without the use of auxiliary equipment."

"The opportunity for expanding the use of motor transportation in connection with air cargo is here, right now. The manufacturers of this type of equipment should be alert to this trend, and should be working very closely with the aircraft builders, and they, in turn, should

be working very closely with the builders of motor transportation units, so that new designs in both fields will be available simultaneously."

"Larger doors should be provided in present planes. Portable belt conveyors and gravity roller conveyors should be set up for loading planes with small packages and for distributing the cargo in the stowage space. Cargo should be brought from consolidation areas in the hangers to the conveyors alongside the plane by tractor trailer trains."

"In the handling of palletized unit loads, the same tractor trailer train method should be used, and the pallets lifted off the trailers and put into the plane by means of a fork truck."

"Without much difficulty it should be possible to build cargo planes with hoisting mechanism similar to those used in bomb bays for elevating bombs."

"It would be possible to use overhead monorails in the top of the fuselage, letting these monorails be the strength members of the fuselage and, at the same time, serve as tracks on which monorail hoists could travel for raising the load into and out of the plane, and for distributing it the length of the fuselage."





Cargo should be brought from consolidation areas in the hangars to the plane by tractor trailer trains.

conveyors and gravity roller conveyors should be set up for loading the ship and distributing the cargo in the stowage space. Cargo should be brought from consolidation areas in the hangars to the conveyors alongside of the plane by tractor trailer trains.

In the handling of palletized unit loads, the same tractor trailer train method should be used, and the pallets lifted off the trailers and put into the plane by means of a fork truck; or, packages can be brought from consolidation areas on platforms, by using straddle trucks.

Air cargo is presenting a number of packing and handling problems, among which is also the necessity of getting cargo to the airport. One of the new terms appearing in Webster's dictionary (D and W, Aug., 1943) is "Motairhandling," defined as "the mechanical handling of goods in distribution between motor and air carriers."

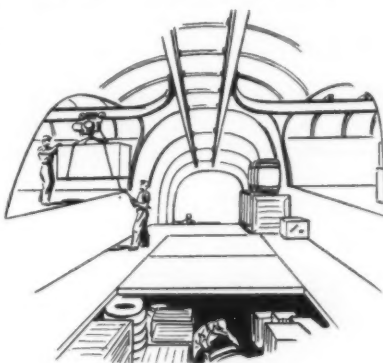
Some engineers and operators are still thinking in terms of present transportation methods, and are considering air cargo as an adjunct thereto, whereas, they should be thinking in terms of air cargo and planning to revamp other ways of handling and transportation in order to facilitate and coordinate them with new air cargo methods. The railroads of this country have overlooked their opportunity for handling fast freight, because they continue to think in terms of tonnage, bulk and volume, and have done little or nothing for the better handling and transferring of freight in small volume.

The motor truck, however, has met this need and will continue to meet it. For this reason, the motor truck is the logical form of ground transportation for airports. It probably will be some time before air cargo is handled in sufficient volume to warrant carload shipments direct to the airport, involving 40 tons or more at a time. Already considerable tonnage is being picked up in small lots over a wide area by motor trucks, and taken to the airports for plane capacity shipments. This use of motor trucks, of tractors and trailers, and even of straddle trucks for carrying cargo from producer, shipper, and consolidated points, to airports, will remain the logical mediums for ground transportation. Possibly this may later be

supplemented by using the helicopter, in some instances, for direct transfer to airports, but, in the main, for some time to come, airports will be served by over-the-highway transportation mediums.

The expansion of airports is going to be so great, and they will be located at such distances from centers of rail transportation, that it will not be economical to secure rights-of-way, and lay track and provide other rail facilities to future airports. Even if such rights-of-way were obtained, the operation of railroads to the airports would not be

It would be possible to use overhead monorails in the top of the fuselage, letting these monorails be the strength members of the fuselage and, at the same time serve as tracks on which monorail hoists could travel for handling cargo.



Illustrations by Harry Johnson

economical, because of the inadequate handling methods requiring the transfer of freight from cars to warehouse to plane, etc. This is very unnecessary.

Truck, trailer and straddle truck manufacturers, and other highway equipment producers, should seriously consider definite standardization of platform heights, the use of elevating end gates on trucks, trailers, etc., to lift the loads from the ground to the truck bed, and also from the truck bed high enough to service side hatches which in the future probably will be on the second deck of planes. It will be necessary to provide elevating bodies on motor trucks so that the whole body can elevate its load to the plane cargo hatch. In some instances, the bed of trucks will have to be equipped with roller conveyors so that heavy loads can be transferred directly from truck to plane without the use of auxiliary equipment. Many other adaptations of existing mechanical devices for handling and transferring materials will have to be incorporated into the general handling plan, so as to save time in loading and unloading air cargo.

In planning and developing airports for the future, it is going to be necessary to forget the present practices of loading and unloading and rehandling cargo on docks, platforms, etc. It is going to require overall planning in order to facilitate the quickest possible handling of cargo. There is no need to build large cumbersome physical structures which will not accommodate the changes that will have to take place in airplane design.

We cannot conceive of the size and shape of airships and planes to come. Therefore, we should not encumber our airports with physical handicaps which will have to be constantly changed to meet new conditions. Wherever possible, handling facilities for cargo and passen-

In some instances, the bed of trucks will have to be equipped so that heavy loads can be transferred directly from truck to plane without the use of auxiliary equipment.



gers should be of a portable nature, so that they may be easily moved, altered, and installed to meet new conditions and requirements.

That is why motor trucks must be designed to handle air cargo directly, if possible. While a certain amount of storage and holding in storage probably will be necessary in the majority of

cases, this can be done in areas outside of the airport zone, and fast, mobile equipment can take the cargo to the airport, ready for individual flights, the same as passengers are now taken directly to airports a few minutes before the plane leaves.

The opportunity for expanding the use of motor transportation in connec-

tion with air cargo is here, right now. The manufacturers of this type of equipment should be alert to this trend, and should be working very closely with the aircraft builders, and they, in turn, should be working very closely with the builders of motor transportation units, so that new designs in both fields will be available simultaneously.

## Unit Load Transfer

**A novel type vehicle body has recently been designed to fulfill the function of unit load transfer between different operations, wherein provision is made through vehicle design to retain the packages intact on pallets without shifting or interlocking. Reduced loading time is said to increase the effectiveness of trailer equipment as much as 25% to 75%.**

**T**HE major advance in package handling during the past decade is that of mechanization by means of pallets and fork trucks which is finding wider applications daily in industry as well as extensive use in the handling of supplies for the Army and Navy.

The fundamental soundness of mechanical handling rests in the fact that usually over 75 per cent of the man hours consumed is in package handling. The pallet and fork truck method performs this part of the operation at a fraction of the cost of manual handling. Also, full utilization of overhead space (air rights) in storage areas is realized at a negligible added expense as compared with the cost of equally high stacking performed manually.

The application of mechanical handling was originally confined to individual warehouses or piers where the savings in man hours usually reduced overall handling costs by at least 50 per cent. The general adoption of fork trucks has advanced to a point where its application is widespread in industry. This has resulted in an advantage to be

By C. W. GORDON

Chief Industrial Engineer  
Colgate-Palmolive-Peet Co.

o o o

gained by transferring packaged merchandise on pallets between manufacturer, carrier and customer. This method is known as unit load transfer.

Unit load transfer has been performed largely in standard line trailer bodies or box cars with packages wire-tied to pallets or otherwise packaged to retain them on the pallets during transit. This method of transfer involves labor and material for securing the load on the pallet and involves a loading problem in fully utilizing the capacity of standard trailer bodies or box cars used for the transfer.

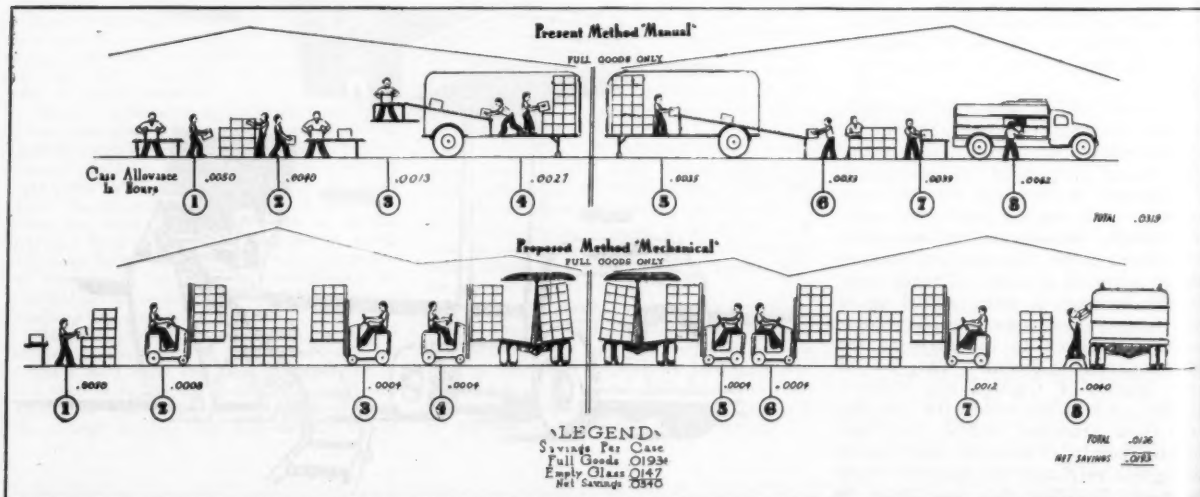
A novel type vehicle body has recently been designed to fulfill the function of unit load transfer between different operations, wherein provision is made through vehicle design to retain the packages intact on pallets without shift-

ing or interlocking. This vehicle body, it is believed, will find its largest use in the tractor trailer field but also has railroad car and route truck possibilities. Its application in the trailer field is illustrated herewith.

The design of the trailer body provides for side loading and has a center A frame running longitudinally the length of the body. This frame contains part of the structural support of the body and acts as a back rest for the packages that are inclined against it by a slight incline in the truck floor. This prevents any lateral motion which would result in interlocking of packages on different pallets. The A frame and inclined floor successfully cradle the packages in a V formation during transit.

The longitudinal shifting of packages is prevented by insert sheets dropped from the roof of the body and ride on trolleys as indicated in the diagram. The rear insert sheet is ratchet equipped and provides a back rest for the last pallet loaded. All insert sheets can be readily moved out of the way for pallet loading

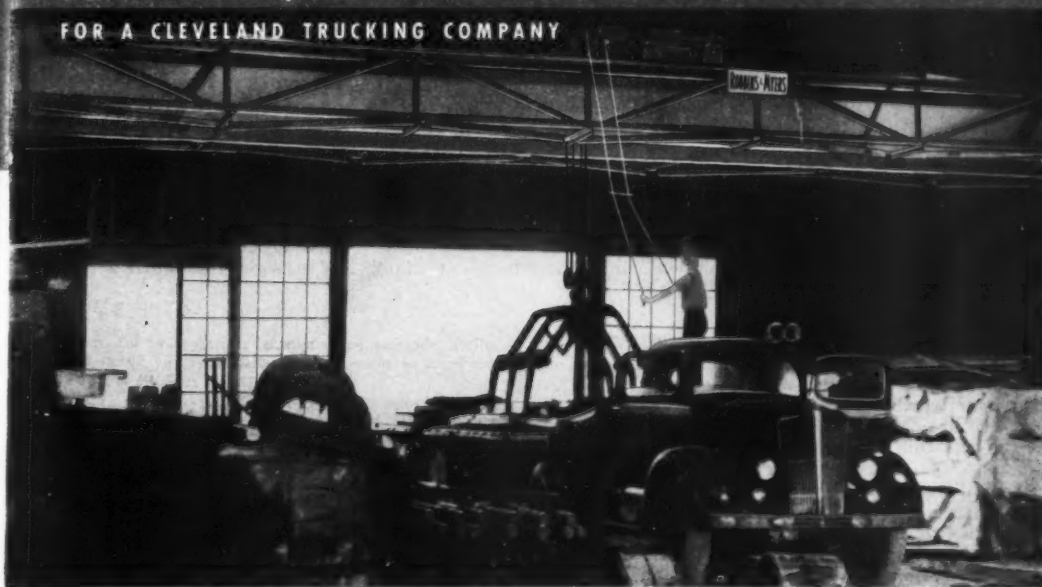
(Continued on page 79)



# *This* R & M CRANE

## Cuts Handling Costs and *Speeds* Deliveries

FOR A CLEVELAND TRUCKING COMPANY



You would have a hard time adding up all the man-hours and all the dollars that this R & M Crane installation has saved. Day and night, for nearly three years now, it has loaded and unloaded plate, strip steel and bars for trucking to war plants in northern Ohio. It has undergone terrific punishment, but in all that time maintenance expense has been negligible.

This particular installation is a 5-ton, double-girder, 3-motor type with a 56 ft. 6½" span. The bridge consists of two 30" I-beams with lattice outrigger. It uses an R & M F-5 hoist with sturdy mechanical Weston brake and an oversize solenoid brake, both designed for rough service and abuse. Other cranes and hoists of various types and capacities are, of course, available. Delivery at the present time requires 3 to 4 months.

Hundreds of R & M Cranes are giving remarkable service for trucking operators, airplane factories and general industrial plants throughout America. Their power, speed and accurate control have won them the respect of the men in the shop. Send for the valuable free R & M Crane Bulletin No. 825DW—or, if you prefer, ask us to have an R & M Hoist & Crane expert inspect your plant and make recommendations on the type you need. You will not be obligated in either case.

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WILL BRING YOU  
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D and W, October, 1943—25



# GROUND HANDLING is Essential

**Since trucks offer the most natural and efficient means for assembling and completing air cargo shipments, operators in the trucking field will do well to cooperate with the airlines; for while the development of air cargo may take some business away from highway carriers, the airlines will develop new business on which truck operators should be able to realize handsomely.**

AS we look forward to the distribution picture of the future, an unprecedented era of transportation progress appears in the offing, with developments stimulated by the war destined to take a leading part. These developments are by no means restricted to aircraft alone, but the strides made in this field stand out so prominently that all eyes are focused on the post-war role of air cargo, and, perhaps, rightly so. Certainly, no other method of transportation has ever come to the fore so swiftly and with such dramatic appeal. Hitherto only a minor factor in the overall transportation of goods, the airplane since the war has risen to a new position of importance.

No one knows exactly what is going to happen, but there are two schools of thought on the subject. One group foresees such an increase in the use of air transportation that it makes the future of other carriers seem bleak. Others, with their feet on the ground, view the future as the natural evolution of progress in which the services of all types of transportation will be carefully weighed on the basis of what each can offer. This, of course, is the rational approach.

Yesterday, we had four transportation possibilities: air, rail, highway, and water. Tomorrow, the same four will occupy the picture but, we must assume, the airlines will take a more prominent part. That the growth of the airlines must result in a proportional decrease of other carriers does not necessarily follow.

Some have viewed the growth of air transportation with such alarm that they have even suggested legislative restrictions as a protective measure. This represents snap judgment in favor of negative action. It is artificial temporizing. History bears out the fallacy of trying to stem the natural tide of progress by legislation. Eventually any service which can demonstrate its advantages will find favor in proportion to what it can offer.

Back in the early days of American transportation the canals tried to forestall the railroads because of the threat which their development constituted to the slow-moving barge lines. But the railroads forged ahead on the strength of faster service in spite of higher rates. Canals are still used when time is not an appreciable factor.

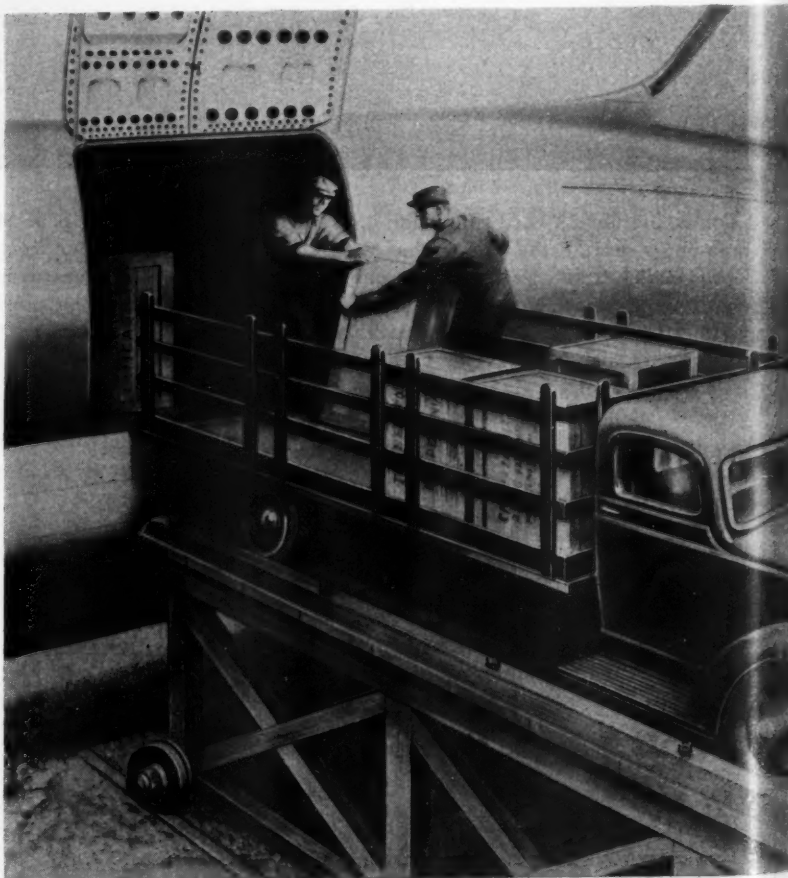
Later the railroads set up a cry against trucks which they felt were invading their field of operations and inspired legislation to restrict highway transport. The hurdles set up merely slowed the advance, resulting in increased costs to truck patrons. Gradually, motor transport forged ahead because trucks could go where rails did not exist. They could perform a complete hauling job from shipper to receiver without rehandling, and didn't

require special crating of their loads. The law of economics portioned the business where it belonged, according to conditions.

Just as the canals protested and fought the expansion of the railroads, and the railroads fought the development of motor trucks, so now we find truck operators, in some instances, sounding a warning against the evolution of air cargo. Thus history repeats. The antidote is merely a liberal portion of straight thinking and commonsense.

Motairhandling graphically visualized, showing one means of coordinating air and highway transportation by handling cargo from truck to plane or vice versa at easily handled loading or unloading level.

(Courtesy Curtis-Wright Corp.)



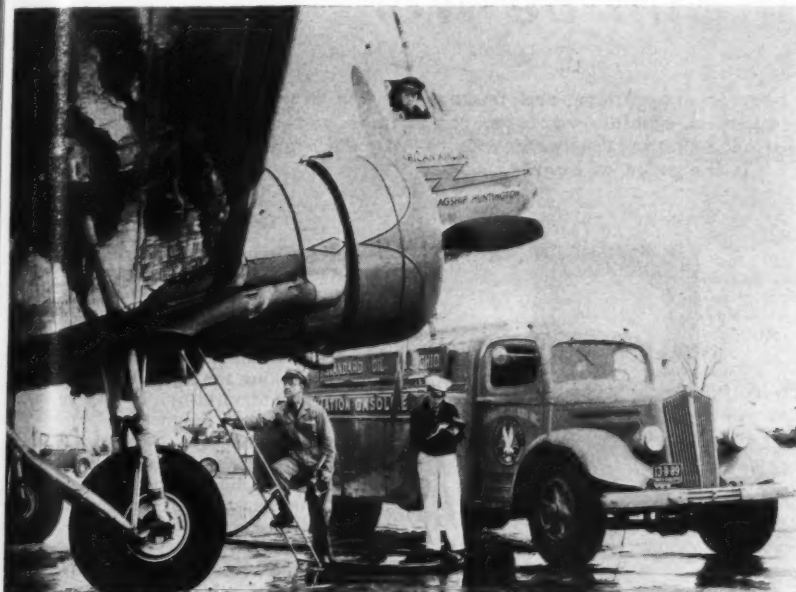


# for AIR CARGO

There is no cause for truck operators to get panicky at this time. Highway transportation has too much to offer. It can well stand on the indispensability of the services it has to offer, although it can not afford to stand still. There is ample room for improvement, taking into consideration the trend toward better highways, the technical advances in equipment, and the operating lessons we have learned from the war. Instead of opposing air cargo, truck operators should set their respective houses in order and prepare to offer a new brand of transportation efficiency.

nance, and personnel questions that will have to be solved. But even all this does not complete the picture. Before extensive operations are undertaken, the cargo potential and the transportation costs must be closely estimated if the huge investment is to show a reasonable profit.

In any air operation, time is the predominant factor as far as the customer is concerned. Time saving, in short, represents the chief advantage which air cargo can offer. And the time advantage must be sustained from shipper to receiver, not merely for the flight period. Unless proper provisions are made for fast ground handling at each end of the



Wherever we find air activity, we find ground activity, with motor trucks taking a prominent part in supplying, refueling and maintaining planes, and in handling cargo. With the larger movement of goods by air, trucks will plan an increasingly important part. Photo shows one of the common but vitally necessary refueling operations that take place day and night on airfields throughout the country.

(Courtesy White Motor Co.)

As far as air cargo is concerned, we are quite safe in taking a middle road between the dramatic dreamers who anticipate a virtual revolution in the movement of goods, and those who belittle the possibilities of aviation. Our war experience with huge bombers and transport planes indicates that cargo carriers of almost unlimited size can be built. But this is only one of the many problems involved. Air fields of sufficient size to accommodate them will have to be developed together with the necessary emergency fields along various routes. Then there are the housing, maintenance,

line, the time benefit may easily be lost.

It is obvious that air cargo offers its greatest advantages in long distance service. On short hauls the rehandling time might well offset the gains.

One thing is certain. Until helicopters are developed with sufficient carrying capacity to handle goods between the roofs of shipper and receiver, air cargo must depend upon trucks for its ground distribution as well as the assembly of goods at the airport. For air cargo to retain successfully its time advantage, close schedules must be observed at terminal points. In other words, ground



By **GEORGE H. SCRAGG**

*Director, Advertising & Sales Promotion,  
The White Motor Co.*

Mr. Scragg is well qualified to discuss this subject on the basis of his long experience both in aviation and highway transportation. He took a prominent part in the development, testing and flying of airplanes before the First World War, and, during it, served as chief technical officer, Night Bombardment Section, A.E.F. Since then he has kept in close touch with aviation affairs.

For many years he has been associated with truck manufacturing and with truck and bus line operations. He is considered an authority on ground transportation. At present, in addition to directing the advertising and sales promotion of the White Motor Co., he is in charge of the firm's aviation activities; is acting chairman of the aviation division, Cleveland Engineering Society; is a member of the Society of Automotive Engineers, the Early Birds, and the Quiet Birdmen, and is executive officer of the Civil Air Patrol in the Cleveland area.—**The Editor**

transportation must have the same careful consideration that is given to air transportation.

There are three possibilities as far as the ground phase of the service is concerned. Airlines can own their own fleet of trucks, they can maintain them under a cooperative ownership plan entered into by two or more lines, or they can employ the services of established motor transportation agencies. Because of the fact that distribution probably will entail consignments, ranging from 50 or 100 lb. up to a ton and more, addressed to many places over an area of considerable size, it would appear entirely too costly to maintain a fleet for such distribution, not to mention the difficulty

(Continued on page 80)



## Freedom of the Highways Must Still Be Won

**Go to sleep on this barrier proposition and freedom of the highways will be wrapped up again in official red tape, regulations and costs. In highway transportation, as in governmental affairs, 'eternal vigilance is the price of liberty.'**

IT is reasonable to expect that in the early post-war period the highway barriers which have distressed users of motor vehicles and have obviously not served the public interest will continue either to be modified or to be eliminated. Their complete and total elimination, from the point of view of the public welfare, is the desirable objective.

In discussing the elimination of highway barriers in the post-war period, it is well to realize that numerous as these barriers appear to be they classify under four general heads. Perhaps first in importance is the lack of uniformity among the states, both in laws and in regulations in regard to sizes and weights of motor vehicles. Many people who use the highways would place the lack of reciprocity among the states in regard to license plates and the fees charged for them in second place of importance among the highway barriers.

Then there are not a few nuisance fees and charges which are variously named in different states, collected in the main from the operators of incoming vehicles, but sometimes from the operators of intra-state vehicles.

And, finally, there are the ports of entry maintained at or near state lines, at which many of the rules and regulations, fees and charges incident to the barriers, are administered and collected.

Reversing this picture of the four large classifications into which highway barriers may be grouped, it could be stated that if ports of entry in the few states which yet maintain them were completely abolished, a great distance would have been traveled in the elimina-



By **CHESTER H. GRAY**  
*Director,  
National Highway Users Conference*

tion of the three other classifications of highway barriers.

During the present war period, by action of the Federal government and at the many sessions of state legislatures recently adjourned, commendable progress was made on this barrier problem. The Federal government led off in this underaking in May, 1942, by asking state officials to participate in a nationwide conference in Washington, D. C., on the general subject of barriers as a hindrance to the war enterprise. Then, months later, when the state legislature convened in nearly all the states, the scene was well laid to move in the right direction in the effort to place highway transportation in such position that it can serve all the people transcontinentally without hindrance of various kinds at state lines.

It may not be necessary to name all the states and all the progress made in regard to securing uniformity in sizes and weights, in moving toward complete reciprocity, in eliminating the petty nuisance fees and charges, and in general, in breaking the backbone of the entire port of entry set-up. It may be permitted, however, to mention that in Delaware, Minnesota, Missouri, Nebraska, New Hampshire, New Mexico and North Carolina to mention no more states, the question of uniformity in sizes and weights of motor vehicles moved toward the solution contained in the war-time formula which was presented at the May Conference in 1942.

A number of states, recognizing that any motor vehicle which complies with the registration and license laws in its home states should be privileged to move across states lines without interference, authorized their administrative officers to sign agreements with other states which would secure complete reciprocity.

In addition to what was accomplished in these directions by specific legislation at the state capitals, it is worth while mentioning that Governors or other administrative officers were authorized by resolution of the state legislatures or otherwise, to deal with these subject matters on the basis of getting on with the war with the complete services which highway transportation can render in that great objective. So, all in all, during the last 12 months, the troublesome incidents of the preceding 10 years, relative to highway barriers, have moved at least into almost total eclipse. But

(Continued on page 83)

# When We've Built Your Trailers We're Only HALF THROUGH



An example of Fruehauf's valuable war-time service is this "stretching" job done by the St. Paul Factory Branch for Merchants Motor Freight, Inc. The length was increased from 24 to 28 feet, with a proportionate gain in capacity. That's one good way to help solve the equipment shortage.

BUILDING GOOD TRAILERS to help you do your important work is only the first half of our responsibility to you. The second half—helping you to keep them running profitably and efficiently—goes on as long as there's a mile of work left in them.

Preventive maintenance—the service-in-advance that keeps equipment from breaking down—is, of course, the desirable way to keep Trailers running. But war-time pressure frequently compels you to run your vehicles until they just won't go any farther without service.

Either way—preventive maintenance or emergency job—you can look to Fruehauf Factory Branch service to carry out the second half of our responsibility to you.

It's true that Fruehauf shops can't

always turn out your work these days as quickly as you'd like—or as we'd like. It's simply a case of too much work, too little manpower.

But whatever the conditions, we're obligated to give you the best service available. That's why we developed the only nation-wide Trailer service organization, providing you with convenient service wherever you may need it . . . and why our Branches are given the benefit of up-to-date equipment and parts stocks, the best-trained personnel available and the full resources of our factory organization.

Even more important than shop facilities or personnel, however, is *responsibility*. When a Fruehauf man says to you, "We'll make it right," we want you to feel that you can depend on it . . . that you're not taking chances. That's money in the bank for you.



**FRUEHAUF TRAILER COMPANY**

World's Largest Builders of Truck-Trailers

**DETROIT 32, MICH.**

Service in All Principal Cities

# FRUEHAUF TRAILERS

"ENGINEERED TRANSPORTATION"





# Flying Fish

**War has given seafood temporary popularity; the airplane can make that popularity permanent. If there ever was an opportune time to launch a new method of marketing a food product it is right after a war. The seafood and aviation industries are 'naturals' for post-war development, the rejuvenation of an ancient industry by the most spectacular and daring of the moderns.**

I PREDICT that, shortly after the guns stop smoking, the seafood industry and aviation interests are going to get together; that one of our popular post-war foods will be "flying fish" . . . delicacies of the sea flown "fresh" to market . . . seined, shipped and served, all in a matter of hours.

The seafood industry has always had two strikes against it, transportation and education. It has never been able to convince the people of the inland states, that is, enough to insure popularity, that fish can still be fresh after a train or truck trip from the coast two or three days away, even though properly refrigerated. Nor has it been able, somehow, to teach chefs and housewives to prepare fish properly when they do buy it.

As a result, the already suspicious public, after repeatedly eating perfectly good seafood ruined in the frying pan, are convinced time and time again that they were right in the first place, "you just can't get fish fit to eat anywhere except right on the sea."

Seafood has held a supplementary place on our national menu, especially throughout the inland states, and has been considered, up until the War, a Friday alternate or a Lenten substitute.

The War, however, suddenly focused national attention on seafood. Both because of the shortage of meat and because seafood wasn't rationed, housewives in a few short months got in the habit of serving fish as regularly as they formerly served steak and veal cutlets. Also, thousands of midwestern soldiers, sent to Eastern and Southern camps, learned for the first time the real taste of shrimp, red snapper, mackerel, redfish, crabmeat and oysters.

Fish, temporarily, is in the same category as beef and pork. The industry cannot fill its orders. The whole country is crying for seafood, as a substitute for meat. Although sadly undermanned,

By RAY M. THOMPSON

o o o

capable of supplying barely half of what its peace time capacity can furnish, the seafood industry is experiencing a great prosperity and popularity.

There is no reason for this important industry ever to slip backward again. The post-war period will be its greatest opportunity in history to bid for the food dollar of the great American public, not merely in restaurants and hotels but on the dinner tables of working America.

War has given seafood temporary popularity; the airplane can make that popularity permanent.

Economists state that food will still be a major problem when peace comes. The seafood industry has the vast and limitless resources of the sea as its

source of supply. It has thousands of skilled fishermen; producers located and equipped to handle tremendous tonnages; dealers, wholesalers and brokers all over the nation with knowledge of the markets. Add air cargo to this list of assets and the seafood industry will wipe out its two handicaps of transportation and education in one fell swoop.

Let the dealers throughout America once learn that succulent shrimp from the Gulf Coast or red snapper from Florida can be laid down in Denver, Col., or Topeka, Kan., four or five hours out of the water, and they'll take care of educating Mr. and Mrs. American Housewife how to fry fish properly. They'll quickly learn to dress up their seafood displays as appetizingly as the cake counter, helped by the promotion departments of producers who will see a market that can be made a seven-day-week source on demand. By air, no place in the country will be more than six hours distant from any other place.

The tonnage of the seafood industry should represent no problem. Most of the planes we are using for freight transportation now are converted DC-3 passenger planes, designated by the Army as C-47's. They will carry about 4,500 lb. But we also want to remember that the Army has built a plane, the B19, that can carry a payload of 58,000 lb. and that the Curtiss-Wright C-46, specifically designed for freight transportation, will carry 16,000 lb. Tonnage capacity will not be the problem.

However, cost may. The experts say that with the cargo planes now on the post-war drafting boards, air cargo can be brought down to 10c. per ton mile. This, of course, is prohibitive, but let's analyze it a little.

This cost is based on the use of one plane and the present type of fuel. But what about flying boxcars, the lead power plane with several trailer planes or gliders? Early in July freight was flown by glider from Montreal to England towed by a Douglas transport. On July 24th, the Associated Press reported a national distance record for

## Seafood by Air

THE seafood industry has always had two strikes against it, transportation and education. It has never been able to convince the people of the inland states that fish can still be fresh after a train or truck trip from the coast two or more days away, even though properly refrigerated. Nor has it been able to teach housewives to prepare fish properly.

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food temporary popularity; the airplane can make that popularity permanent.

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If there ever was an industry that needed air cargo to fill a winning hand, it is the seafood industry.



plane-towed freight gliders, 1234 miles non-stop from Sheppard Field, Tex. to Maxton Air Base, N. C. The flight was performed under adverse weather conditions. Flying freight trains are here, not on the way. Further development of diesel engines is another factor to be considered. Diesel engines would reduce the greatest single cost factor in plane operation, the fuel consumption.

By the use of gliders and diesel engines, some experts believe, it is possible that freight by air may be brought down to about 3c. per ton mile, which is approximately the cost of first class freight by rail today.

The refrigeration factor has already been solved. Refrigerated planes are actualities. But, even in the case of a scarcity of electrically refrigerated cargo carriers, the seafood industry could use dry ice to maintain the proper temperature for a flight of four to six hours.

There is, of course, one final and last factor that should be given more consideration, that is, proper airfields. But every seafood producing area, in nine out of ten cases, has plenty of landing room for amphibian planes within a few hundred yards of its shippers' docks. The inland markets represent a little tougher problem. Some will not have airfields adequate for freight. But such centers as St. Louis, which, incidentally, is planning a flooded airfield for seaplanes, can serve as distributing points. Feeder trucks can supply the towns around, still placing the seafood on the consumer's table in a matter of hours, not days, after the catch.

Even as far back as 1937, flying fish was actually proven to be a successful



THIS TYPE OF PLANE . . . according to some experts, would be ideal for flying fish to inland market centers. It is one of America's largest twin-engined cargo planes, the Curtiss Commando, or C-46, and can carry 16,000 lb. of cargo. A few planes like this, Mr. Thompson thinks, could do wonders for the seafood industry after the war.

Wide World

proposition. A private flyer by the name of H. W. Harbican, now a Captain of Chicago and Southern Airlines, flew fish fresh successfully from Bay City, Mich., to Chicago for the hotels and restaurants, a distance of about 400 miles.

Recently, a committee of the Air Cargo Research Assn. reported that the post-war air carriers may be able to bid for 186,492,520 tons of freight or about 15.2 per cent of the total tonnage originated by the railroads in 1941. This report suggests that the first find of business likely to be attracted to low cost air cargo is that which is now moving via Railway Express. We're getting

warmer. Much seafood moves by Railway Express.

From Chicago comes the report that The Burlington Transportation Co., a wholly owned subsidiary of the Chicago, Burlington and Quincy Railway Co., has filed an application with the Civil Aeronautics Board seeking authority to operate helicopter-type aircraft over more than 3,000 route miles over seven states. We should be foolish to overlook the helicopter. It seems that the rail carriers are not. Many of them are planning experiments with auxiliary air freight service.

Professor Charles B. Breed of Massachusetts Institute of Technology believes helicopters will play an important role in America's post-war aviation in the field of short-haul, small-item freight. He is of the opinion that helicopters will serve as feeders to mainline airports, and that they will be used extensively as pick-up carriers, particularly for rush shipments.

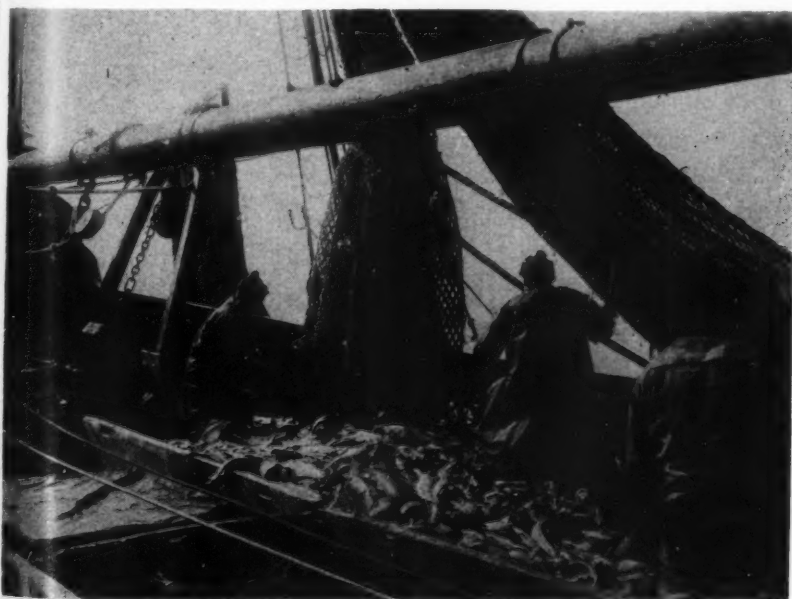
Incidentally, it is also of interest to note that Prof. Breed does not believe domestic air carriers will need government subsidies after the war. He believes operation costs can be absorbed in increased volume.

If there ever was an industry that needed air cargo to fill a winning hand, it is the seafood industry. If there ever was an opportune time to launch a new method of marketing a food product, it is right after a war in a period when that food is greatly in demand and when the attendant high prices can partly offset the expensive air experimentation. If there ever were two industries that, on paper, seem to fit each other like the hand and the glove, it is the unbeatable aviation industry and the inexhaustible seafood industry.

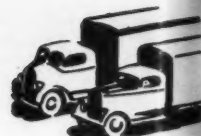
I believe in it so thoroughly that I offer "Flying Fish" as the trademark, slogan and advertising theme of the first seafood company to transport fresh fish via air to the families of America.

FRESH FROM THE SEA . . . these fish now are consumed largely by people in the coastal states. The use of air cargo will enable fresh fish to be shipped inland daily, thus enlarging the potential market of the seafood industry many times.

Green



# Motor Cargo ...



## 47,919 Trucks and Trailers Authorized By WPB for Production Early in 1944

The War Production Board has announced approval of initial truck and trailer programs for 1944 which will permit production of 22,859 medium and 10,993 heavy trucks, and 14,067 trailers. A majority of these trucks and trailers is scheduled to roll off the production lines during the first six months of 1944. At a later date, should the condition with respect to the production of components warrant, according to the Automotive Division of WPB, programs for additional truck and trailer production will be authorized.

Of the heavy trucks, 5,282 will range from 16,000 lb. to 21,999 lb. gross vehicle weight and 630 from 22,000 lb. to 26,999 lb. gross vehicle weight, while 5,081 will be 27,000 lb. gross vehicle weight and over. Of the 5,081 trucks in the heaviest classification 3,424 remain to be formerly authorized for production in the immediate future. The production of 1,500 off-the-highway trucks has also been authorized.

The determination of this program was influenced, it is said, by the availability of facilities for production, particularly the facilities for production of components such as engines, axles and transmissions, and by a study which indicated the sizes and types of commercial motor vehicles most needed.

Manufacturers participating in the general freight trailer program have been authorized to produce trailers of such types and in such sizes as their analyses of the demands from motor freight lines, agriculture and other essential industries using trailers indicate are most needed.

### For-Hire Truckers Need Equipment

The lack of new motor truck equipment is creating a crisis in the for-hire motor trucking industry in Chicago, Walter McCarron, general manager, Illinois Motor Truck Operators Assn., said in a letter addressed recently to the War Production Board. The limited number of trucks authorized for construction by the WPB is entirely inadequate, he asserted.

"Chicago's for-hire cartage industry," he declared, "faces a breakdown within a few months if several hundred new heavy duty trucks, tractors and semi-trailers are not made available immediately." (Slawson).

### ATA Convention Convenes At Chicago Oct. 19-21

A large and representative attendance is expected at the annual convention of the American Trucking Assn., Inc., Oct. 19 to 21, inclusive, at the Hotel Sherman, Chicago, Ill.

The program will deal with major current problems of the trucking industry, and will include speakers prominent in the highway equipment and motor transportation fields, as well as officials of the government in charge of various wartime transportation activities.

### Anti-Freeze Solutions Should Be Tested Now

Owners and operators of all types of motor vehicles who plan to use again this winter anti-freeze saved over from last winter are urged by the ODT to have the liquid tested before putting it into the radiator to make certain that: (1) it is not of a harmful oil or salt (corrosive) type; (2) its anti-freeze strength is not impaired; (3) it contains sufficient acid and rust inhibitor.

### Transportation Tax Explained by ODT

The three per cent Federal transportation tax does not apply to amounts paid by private motor carriers for adjustment of costs under certain joint action conservation plans, the ODT has announced.

Under the Revenue Act of 1942, a Federal tax of three per cent is levied upon the amounts paid for transportation of property by rail, motor vehicle, water or air. Where each private participating motor carrier operates his own equipment with his own personnel and merely pools merchandise with other private carriers for transportation and delivery services within a certain area the tax does not apply.

Under these conditions, the amounts paid by one private carrier to another for the purpose of adjusting the cost of transportation and delivery of merchandise is not subject to the tax. In such instances the parties to the joint action are not considered by the Bureau of Internal Revenue to be in the business of transporting property for hire within the meaning of the Act.

However, if the carriers set up a separate entity, such as a corporation, to perform transportation for all members, then the amounts paid by the merchants for this transportation service would be subject to the transportation tax, the Bureau also ruled.

## PREVENTIVE MAINTENANCE NEEDS STRESSED AT COAST SAE MEETING

Probably the most practical and timely discussion coming out of the Society of Automotive Engineers' meeting held in August at San Francisco, was that centered around Engineers' meeting held in N. Hatch, on "Preventive Maintenance and Inspection Procedure." Mr. Hatch who is associated with the American Brake Block Division of American Brake Shoe Co., was formerly connected with a large trucking company. Because of the shortage of parts and the difficulty of getting skilled mechanics, he argued that "fleet operators can keep their fleets in action and do their part in winning the war as key men on any production home front if they place emphasis on preventive maintenance as never before.

"We are now stuck with whatever equipment we have and we are also stuck with less competent mechanical crews for the duration and for some

time thereafter. Our loads are still increasing, our equipment is getting older, our mechanical crews are suffering inroads from the draft and war plants. That means that the fleet operator is the man in charge of methods, and not much else. The time has come to get to work on those methods."

Mr. Hatch insisted that "the success of any good preventive maintenance plan depends upon discovering the defect before it causes expensive damage. My suggestion as to the best place to start training your personnel to meet the present emergency is to stress the importance of this daily service on every mechanic involved." Catching water and oil leaks was one of the important failures to watch for, he said. He also gave a complete, detailed inspection procedure which he suggested fleet operators follow. (Gidlow)



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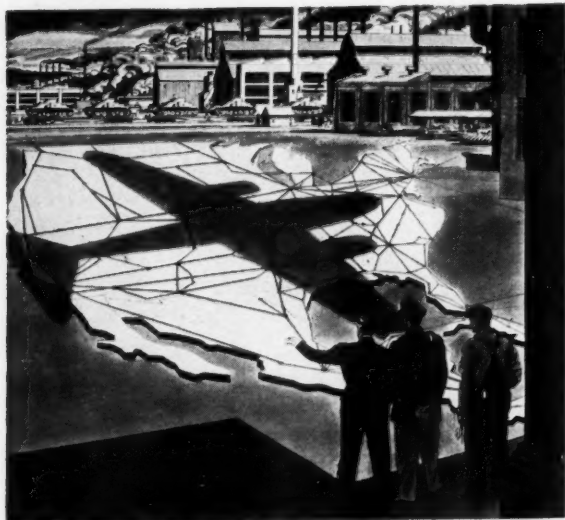
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## Monthly Reports Due Oct. 15, ODT Says

The selective record and reporting procedure for truck operators recently adopted by the ODT has become generally effective on September operations, the ODT has announced. However, a few operators will be required to file reports on their August operations, the ODT said. As announced previously by the ODT, the monthly operation reports will be required only of certain classes of motor carriers.

The September report, which will be due Oct. 15, is requested of three general classes of truck operators: (1) all freight truck operators classified as common motor carriers; (2) all tank truck operators, and (3) all contract motor carriers operating in over-the-road service.

## Transport Workers Urged To Stay on Their Jobs

Transportation workers should stay on their jobs. They will not improve their Selective Service status in any way by transfer, provided they are now using their highest skills, Otto S. Beyer, member of the War Manpower Commission and Director of the Division of Transport Personnel, ODT said recently.

"Transportation is a vital war industry, and transportation needs workers," Mr. Beyer declared.

# All-Commodity I. t. I. Rates Sustained —Held 'Just and Reasonable' by ICC

Cases of far-reaching import to the motor freight industry, under study for three years by the Interstate Commerce Commission were decided last month. In a single decision covering three cases, Division II, ICC, upheld proposed all-commodity less-than-truckload rates designed to put motor common carriers on an equal competitive basis with freight forwarders between the Central West and California and Utah. The ICC held that motor common carrier rates based on minimum all-commodity shipments of 30,000 lb. from Chicago to Oregon and Washington are "just and reasonable."

Proceedings were discontinued on common carrier rates, all commodities, from certain cities in this part of the country to Los Angeles and Salt Lake City, because the rates have been cancelled.

The case, the Chicago Journal of Commerce points out, first appeared in June, 1940, when trucking companies who were parties to tariffs published by Agent D. C. Stone proposed new commodity rates on all kinds of freight in 18,000 lb. minimum less than truck-load lots between Chicago, Kansas City, St. Louis and Omaha, and Los Angeles and

San Francisco. Consolidated Freightways and other carriers entered the case, seeking new commodity rates on minimum shipments of 30,000 lb. All the rate proposals drew railroad protest. But the ICC has now declared the "all-commodity less-truckload rates are just and reasonable."

## Uniform Freight Classification Asked

A uniform, and blanket freight classification to be applied to all freight carriers based on defined principles of commodity value and density has been requested by the trucking industry in a brief filed with the Interstate Commerce Commission by legal counsel of the American Trucking Assns. The 14 territorial rate bureaus which operate throughout the country, through their representatives, joined with ATA counsel in this petition.

Incorporated in the brief was the suggestion that a comprehensive analysis of the flow and volume of normal traffic movement would develop the need for the classification asked for by the carriers.



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# Will Dehydrated Foods Reduce Transportation Needs?

**E**LECTRONIC dehydration is the latest development in the field of dehydrated food. Advantages claimed for it over oven drying are that it makes possible the compression of food while it is still pliable, that it puts heat into the center of a compressed food brick as well as on the outside, and that it requires no refrigeration because the product has a moisture content of one per cent only.

In the opinion of eminent authorities, dehydrated food, whether electronic or otherwise, if generally used after the war, seems likely to affect post-war transportation in many ways. The question was discussed at length at a recent meeting of the Atlantic States Shippers Advisory Board.

T. L. Wilson, senior electrical engineer, Industrial Electronics Products, Division Federal Telephone and Radio Corp., after explaining the principles of dehydration answered questions from the floor. The following material has been extracted from the proceedings of the Board, and is presented here in the belief that it is pertinent and timely as well as of general interest to shippers, carriers and warehousemen everywhere.

*The Editor.*

□ ○ □

"IT is now possible to dehydrate a package of food after it has been compressed into a very compact unit, which means that the shipping space required is very much less, although the shipping weight will be approximately the same as other dehydrated food," T. L. Wilson, senior electrical engineer, Industrial Electronics Products, a Division of Federal Telephone and Radio Corp., told members of the Atlantic States Shippers Advisory Board in New York recently.

"If you take a package of beets and shred it up, and you know what happens when you shred beets, the volume becomes very great. When you dehydrate you take a lot of water out of that until you get about 15 per cent of the original moisture content. Then the package is put into a press and compressed into a square brick. Those, about 6 in. x 3 in. x 1/4 in., will serve between 15 and 20 men a full meal-time portion, and I mean it is a real portion. I have had some at home. I know if we put in a little, less than a quarter of the brick, it fills an ordinary saucepan after it has been reconstituted.

"This compressed brick then is further dehydrated and therein is the application or the wide difference between the electronic method and the ordinary oven drying methods. I think they will dehydrate all right, but if you want to get down to moisture contents where the material becomes brittle such as in the order of one per cent, which is required for long preservation, it is impossible to compress the food, and I believe that their process requires that the food have the maximum area and contact with the drying process. In other words, they have a pan of food in an oven and it is

just in the ordinary shredded form, although it is greatly reduced in water content. They must keep the maximum amount of area in contact with the hot gases or steam heated oven air in order to get complete dehydration.

"In our particular case, using the electronic principle, we can take a large compressed brick of food which was compressed when the food was pliable and therefore is not destroyed as far as shape is concerned when you reconstitute it. We have not broken down any cells. We compressed the food when it was pliable, when it had sufficient moisture content. It looks about like leather. Later it was dehydrated because the electronic principle will let you put the heat into the center of the compressed

## Straw in the Wind?

Pharmacist's Mate Solomon Parker, 25, of the Coast Guard recently returned from Sicily where he took part in the invasion aboard one of the landing barges and in helping to care for the wounded.

Interviewed recently by a New York newspaper, he is quoted as saying that our troops were made "fighting mad" by being fed dehydrated foods shortly before the invasion and "felt like beating up somebody."

Once the Sicilian shore was reached, however, the soldiers forgot all about dehydrated cabbage "which tasted like paper," and gave their full attention to the enemy.

Consumer acceptance of dehydrated food after the war may depend to a very large extent on what the fellows in the armed forces think about it.

brick as well as on the outside. Therefore the advance we have been able to make.

"To give you some idea of the industry with which we are associated, in 1940 there were some 40,000,000 lb. of food dehydrated, and in 1943 it looks as if there will be 400,000,000 lb., which is an increase of tenfold in three years. The number of plants doing this work is more astounding. There were five plants in 1940 and some 250 of them dehydrating food in 1943.

"With dehydration down to one per cent moisture content it is possible to seal the dehydrated food into an air- and watertight container such as say a heavy wax paper wrapper and then just let that sit out in ordinary room temperature.

"This means in shipping dehydrated food from one portion of the country to another it is not necessary to refrigerate but to just pack up in cardboard cartons such as you would a case of canned milk now, except of course the volume will be much reduced, and you could ship it in just the ordinary car. As long as the moisture content remains very low the preservation is very good. When the moisture content becomes higher, I think about 10 per cent, the time of preservation is much less.

"That means for a long preservation where you have got to store merchandise on consumers' shelves and in consumers' warehouses, the moisture content must be brought originally very low."

## Questions and Answers . . .

In answering questions from the floor it was brought out by Mr. Wilson that the vitamin content of food was not seriously affected by dehydration. With respect to refrigerator cars, he said they would still be needed to carry raw materials to dehydrating plants. Had there been no dehydration, it was pointed out, there "would not have been a fraction of the nutrition exported for use in foreign countries."

**Question:** "Is there necessarily bound to be a reduction of the total transportation demand as a result of the development of dehydration?"

**Mr. Wilson:** "I think we all must first of all realize when a question like that is asked that dehydrated foods are still subject to consumer acceptance and that point is a very big problem. If Mr. and Mrs. Married Americans do not want dehydrated food, certainly nobody is going to supply it to them. It is a free country. We still don't have to eat what somebody tells us to.

**Question:** "Is it not true, Mr. Wilson, in the development of dehydration that you are going to create mobile equipment to go into the field similar to the harvester and therefore even the truck or short haul rail transportation will not be necessary, and is it not true if dehydration progresses to the extent it has in the last year or two that the retail store instead of having a 50 ft. front will only require about 20 ft. front, and there will

(Continued on page 87)



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# LATINA



View of Mount Chimborazo from highway near Rio Bamba, Ecuador. Elevation of the snow-capped peak is 20,000 ft.

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**H**IGHWAYS and airways are changing the tempo of life and hastening the development of Latin America to a degree few would have thought possible a few years ago. Extension of the Pan American Highway, the construction of other strategic roads in the interior of South America, and the tremendous growth of commercial aviation in Latin America are factors of supreme importance which, undoubtedly, will affect profoundly the future economic and social life of the entire western hemisphere.

Authorities are of the opinion that Latin America offers the most promising field for immediate development in the entire world. According to bankers, the dollar balances accumulated by Latin American countries, and the sterling funds piled up in allied and neutral countries are of such size that they are certain to be a major influence in international trade and exchange after the war. Gold reserves in 11 Latin American countries are reported to be in excess of \$1,325,000,000.

In the past, there have been many problems affecting trade in and with Latin American countries. Not the least of these was the difficulty of transportation. With the highway construction

By **JOHN CANETTA**  
*Industrial Engineer*  
*Westinghouse Air Brake Co.*

now in progress and proposed, and with the widespread use of aviation in Latin America this problem is likely to be eliminated to a very large extent within the next few years.

The Pan American Highway is well on the way to completion. Sections of the highway are already being used, notably the section from Laredo, Texas, to Mexico City, and from there to the Panama Canal. With so much effort being exerted, I think there is every reason to believe that a major portion of the rest of the highway will be completed within the year. The road from San Salvador's northern border southward almost to Honduras is now in use. In Guatemala, the road is still unfinished largely because of the rugged nature of the country, much of which is virtually inaccessible.

The Pan American Highway so far completed saves about one-third of the traveling time formerly required. Be-

cause of the lack of railroads between the Canal Zone and Mexico City, freight has had to be transported by water, a five-day trip, extremely hazardous recently because of the submarine menace. Important goods may now be carried by heavy trucks. As every traffic manager knows, it is much faster to ship by truck than by boat, and packing and loading problems are usually much simpler.

Fields and industries to be served after the war will depend largely on the industrial development of Latin America. Heavy industry probably will be served best. Electrical equipment for operation of the Panama Canal locks, for example, instead of going from Pittsburgh by train to New York and from there by boat, to the Canal, may be loaded in trucks at Pittsburgh and go direct south to the Canal.

In Mexico, coffee is being produced to a greater extent than ever. Also, much silver is mined right along the highway near Mexico City. Trucks are being used more and more for transportation. Away from the coastline transportation is more economical by truck. Processed minerals and agricultural products depend almost entirely on highway transportation.

Fifteen years ago highway transpor-

# NAMERICA

## Land of Promise

**Airways and highways are rapidly hastening the development of Latin America, which has been termed the most promising field for immediate development in the entire world. Rich in resources and potentialities, it has found in the airplane a solution of its hitherto insurmountable transportation problem.**

ation in Central America was nil except in the vicinity of the large cities. Much has been done since then. When the new highway is completed, many feeder lines will be constructed. Good roads into the

mountainous and isolated areas will be the making of Central America.

Highways in the deep interior of South America are also going to make a big difference in the transportation of the

Latin America has more airlines than we have. Scadta Airlines, one of the pioneers in South America, is now owned by Pan American Airways. This shows one of the hangers at the air-marine base at Barranquilla, Colombia.

(Press Assn.)



Bowden

Pan American Highway near Oaxaca, Mexico.

future. The new highway that connects Lima, Peru, with the Amazon is now being completed; it will be one of the most strategic highways of the continent, Peru's "Burma Road." This road will permit the shipment of tropical products from Brazil to the United States by way of the Pacific rather than by way of the submarine infested Atlantic. The new railroad between Africa, Chile, and La Paz, Bolivia, is also being used to good advantage as the terminal link of many inland roads.

Lack of better transportation in South America has been caused largely by topographical difficulties, thinly populated areas, and scarcity of capital. The Import-Export Bank is helping to overcome some of these difficulties. Any improvement in South American transport will inevitably improve trade relations between North and South America and consolidate hemisphere solidarity.

Because of the rugged nature of much of the South American continent, the development of the airplane has been a great boon. It may even be said that in Latin America the airplane is more important than it is in the United States. At present, most of the business going to South America is by plane. Planes are moving almost as many passengers as were formerly carried by boat.

Air tonnage now is about one ton of freight to 5,000 tons of rail shipping. Nevertheless, air transportation in certain inaccessible regions where highways haven't been built, and where railroads are unknown, has become indispensable. The Pan-American Grace Line now operates a freight line from Balboa, Canal Zone, to Santiago, Chile.

In wartime, of course, we do things by air that would not be economical or practical in normal times. For example, I recently had certain metals shipped by plane to Pittsburgh from South America. I doubt whether this will happen after the war, although it might.



The Road of the Two Continents under construction in the mountains of Brazil. (Wide World)

Rubber is a bulky commodity that is flown up from South America now despite the cost. In certain localities of South America, when commodities of great value are needed, such as a valuable mineral, some special product, or a machine part for mining equipment, the airplane is the only quick and practical means of transportation by which to obtain what is needed from the outside world. In some sections, Columbia, for instance, small cargo planes deliver mail and merchandise in a few hours that used to take weeks to deliver by river boats and burros.

All Latin American republics have local airlines owned and operated both by their various governments and by private companies. The former German-operated lines in Columbia and Bolivia and some of the other countries have been taken over by South American interests, with no loss of any kind because of the change. Pilots and operators, for the most part, were nationals of the respective countries anyway.

The rapid advancement of civil aviation in the republics to the south was revealed in a recent report issued by the Office of Air Transport Information, United States Department of Commerce. It shows that the number of airlines in Latin America is now two and one-half times as great as that of United States airline companies.

Total mileage of the 44 operating companies serving Central and South America with 750 scheduled stops is 124 per cent greater than that of our domestic lines, prior to wartime curtailment, and represents 106,828 miles compared with 47,703 miles. There are 17 domestic air carriers in the United States with 260 stops.

In many sections of South America, as previously stated, travel and shipment of goods would be virtually impossible without the airlines. Mountains, jungles, swamps and deserts make ground transportation in many areas difficult if not impossible. For that reason, air transport, always faster and often less expensive, has advanced so rapidly in Latin America. In 13 of the 20 Latin American republics airline

mileage greatly exceeds railroad mileage. In the coming years it probably will multiply much more and very rapidly.

We do not know exactly what freight is being transported to Central and South America by plane from the United States today, but it is safe to assume that on the West Coast, particularly, an unbelievable tonnage of technical materials is being transported by air. And important cargoes, presumably, are being brought back to this country.

As for personnel to facilitate air cargo in Latin America, and for loading and unloading of goods, etc., all Latin America needs is instruction by men with adequate knowledge, the proper disposi-

tion, and the knack of imparting information. Latin Americans are intelligent and capable. Many may not be good mechanics, but that is largely the fault of poor or inadequate instruction.

We in this country have everything to gain by generous and open dealings with the peoples of Latin America. Their resources and potentialities are enormous; their buying power is greater than it has ever been; their future is unlimited. They have much that we need and will want. There is every reason for closer reciprocal trade relations between the peoples of North and South America. It will benefit both.

At present, of course, the war is curtailing international business in all South American countries. The transportation situation, particularly, is in a bad way. In Brazil, Chile and Uruguay, for example, many motor vehicles have been converted and now use charcoal burning equipment because of the gasoline shortage. They are having an even worse time of it than we are with respect to replacement parts for cars and trucks. In some places spark plugs are about eight times their usual price. I read a report in the paper a short time ago which stated that when a ship arrived at a port in Peru recently with a cargo of gold and tires a police escort was furnished for the tires but none was needed for the gold.

However, as soon as the war is over, Latin America, commercially speaking, will blossom like a desert after rain. The future possibilities are tremendous!

## Sky Switching of Air Freight Trains Predicted by Aircraft Manufacturers

**P**REDICTING that coast-to-coast, non-stop aerial freight trains will switch their cargoes in the sky as railroads now switch box cars, Roy A. Watkins, executive vice president and general manager, Howard Aircraft Corp., Chicago, told a joint meeting of the Rotary, Kiwanis and Lions clubs at Iowa City, Ia., recently, that freight trains that fly will create an entirely new marketing system after the war in the United States, and ultimately throughout the world.

"Nearly every farmer," Mr. Watkins said, "if he grasps his opportunities can own or lease one or more air-freight fuselages—bodies without wings. On short notice he will be able to load it with produce. A helicopter will pick up his fuselage and carry it to an airport. Wings will be bolted in place by ground crews and the fuselage will become a freight glider.

"Coming out the sky will be an aerial freight train. The farmer's glider will be pulled into motion by an aerial switcher, taken aloft, and

will be able to glide into position behind the aerial freight train.

"Such freight trains may cross the country without a stop, circling airports and cutting out or taking in gliders at will by means of devices already available.

"This picture," Mr. Watkins said, "is absolutely within the realm of possibility the moment our peace policies have been settled. There is, however, one dismal prospect, and that is possibility of failure to handle our post-war problems correctly. Congress must give business a healthy atmosphere in which to work. Also, we must kill off any movements to nationalize our transportation services and our airplane manufacturing.

"There are people in Washington today who think that aviation manufacturing ought to be controlled. We must resist that to the bitter end," he declared, "so that initiative can blossom in the hands of the people themselves."



# POWER BREAKDOWN PARALYZES MEXICAN WAR PRODUCTION



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**N**OT very long ago, the city power plant in one of Mexico's largest centers of war industry—Monterrey—suffered a breakdown which seriously affected production of vital tools of war.

Monterrey officials were deeply concerned. The materials needed to effect repairs and restore power were in Philadelphia, thousands of miles away. Days of damaging delay were foreseen—and then someone had an inspiration...

International Air Express! That was the solution! Contact was made with American Airlines in Monterrey. The telegraph wires buzzed feverishly between American's offices in Mexico and the United States. Men worked like fury.

The War Department assigned the shipment a high air transport priority rating. Flight 15—American's regular coast-to-coast cargo flight—made a special stop at Philadelphia. And in the end, the sorely needed 2800 pounds of materials were winging swiftly to Monterrey.

By using American's International Air Express Service, the precious shipment was in Monterrey in only 16 hours, instead of what Mexican officials said would have been a disastrously slow 8-day trip overland. As a result of what these men termed the "invaluable assistance" rendered by American, days of priceless time were saved—and a notable contribution made to the United Nations' war effort.

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## Martin Plans Post-War Cargo Planes For Easy Loading and Heavy Freight

BALTIMORE, MD.—Plans for production of a new type cargo plane as soon as the war is ended, have been announced by the Glenn L. Martin Aircraft Co. The planned air-freighter of the post-war period, already designed and patented, has no inherent maximum size or weight limitations, it is said, and will be as easy to load and unload, as a motor van.

This cargo plane's design has been developed by William D. Van Zelm, of the Martin engineering department who has assigned the patent to the company. The new Van Zelm cargo plane, it is said, differs from aircraft now being produced in that it has been specifically designed for cargo carrying and not merely an adaptation of a conventional plane.

Included in its features are a loading door under a boom-extended tail surface, with a collapsible ramp which can be run either to the ground or the back platform of a truck; built-in winches for hauling heavy freight aboard and adjustable jacks to prevent strain on the plane itself.

It will be possible, it is said, in loading automobiles, wagons, trailers or other wheeled freight aboard the ship to run or push them directly into the plane. Since the loading is accomplished through the end of the fuselage, no juggling or turning is necessary once the cargo is aboard. Boxed freight will be drawn aboard by means of a winch provided at the front of the fuselage.

Both twin-engined and four-engined designs of the new cargo plane will be constructed, it is stated. The twin-engined ship will have a gross-weight of 80,000 lb. and the four-engined type, a gross of 86,000 lbs. and a useful load of 36,780 lb., of which 27,000 lb. will be cargo. Both types will be low-winged monoplanes.

Overall size of plane can be varied, just as in more conventional aircraft, it is said. This includes wing area, position and also number of engines. (Ignace)

### British Steamship Lines Study Air Transport

In similar moves the Cunard Steamship Co. and Furness, Withy & Co., have prepared resolutions for shareholders to vote on in the near future authorizing the respective companies "to establish airlines between any countries or places;

### Dr. Frederick to Address SAE Air Cargo Meeting

Dr. John H. Frederick, air cargo editor of *D and W*, who also is professor of Transportation and Industry, School of Business Administration, University of Texas, will be one of the principal speakers at the annual Air Cargo Meeting of the Society of Automotive Engineers at the Knickerbocker Hotel, Chicago, Nov. 8 and 9.

Dr. Frederick will speak on the subject "Coordinating Air and Surface Cargo Transportation" which will be published in full in the December issue of *D and W*.

to build, buy or charter aircraft of all kinds and to construct and maintain air fields and stations."

The acceptance of air power by companies that have long been two of the most conservative of British shipping firms emphasizes the trend of all British steamship companies toward plans for entering the post-war race for the world's air freight and passenger business.

## AIR TRANSPORT HELD GREAT BOON FOR LATIN AMERICAN DEVELOPMENT

The lack of adequate ground transportation represents one of the greatest boons to air transportation in Latin America, according to J. Parker Van Zandt, director, Office of Air Transport Information, U. S. Department of Commerce.

"To a combination of geographical obstacles and limited surface communications the airplane owes its unequalled opportunity for usefulness in Latin American countries," Mr. Van Zandt said, citing as an example that on the west coast of South America, from Lima, Peru, to Santiago, Chile, a distance of 1,650 miles, the surface trip requires six days, against 10 hours by air.

Surface travel through mountainous country in South America, he said, being reduced from an 8,000 mile journey requiring from 30 to 40 days, to 735 miles by air in less than one day. What

### New Air Cargo Service Links U. S. and Cuba

What is said to be the first foreign rail-express and air service in U. S. history was inaugurated between 45 domestic points and Havana, Cuba, Sept. 15 through an arrangement between Acme Overseas Express and the newly established airline of Expreso Aereo Inter-Americano, S. A.

Acme Overseas Express is a newly established division of Acme Fast Freight, Inc., 25-year-old forwarder of fast freight by rail. It will employ receiving stations for the new through express-air service 45 of the branches of Acme Fast Freight, located in a like number of cities throughout the Atlantic and midwestern states, extending as far west as St. Paul and Omaha.

Through the new service, shippers may deliver their shipments of air cargo to any one of the 45 Acme Overseas Express receiving stations, with certain specified documents, and receive a through air waybill covering all transportation charges for the entire movement from receiving station of origin to downtown Havana. No consular invoices are required. Transfer of shipments from fast rail express trains to Expreso Aereo Inter-Americano's terminal at Miami, Fla., is handled entirely without charge and, Acme assures its customers, with a minimum of delay.

Expreso Aereo Inter-Americano is a Cuban-controlled company which recently was granted a permit by the Civil Aeronautics Board to fly cargo between Miami and Havana, thus substantially increasing the total available airplane space between Florida and Cuba. Its present schedule includes two daily cargo-carrying flights between Miami and Havana a two-hour flight.

pertains to passenger transport conditions, he stated, prevails to a relative extent also with respect to air cargo.

Mr. Van Zandt believes there is a promising future for air cargo and passenger service throughout Latin America.

"Granted favorable technical, political and financial conditions," he said, "there is a great field for the development of internal air transportation in the countries of Latin America. Air travel in general represents far more than an improvement over existing conditions. In effect, it offers an entirely new kind of transportation."

Pointing to social changes a developed air transport system would bring about, Van Zandt said: "In a country as young as Latin America in an economic sense, the coming of the air age portends vast social and political changes, as well as business and economic changes."

*Wings for  
your Cargo!...*

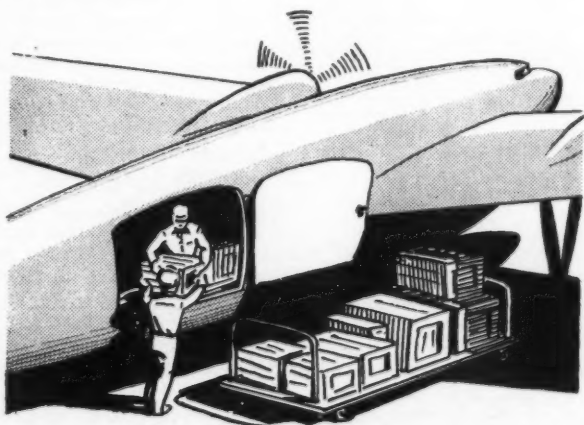


## A NEW AIR EXPRESS SERVICE TO CUBA

That which has been prophesied as a post-war development is here. **All-Cargo** planes flying over the Caribbean carrying express and freight shipments exclusively, now deliver their varied cargoes in a few hours to points that formerly required days or weeks.

Your shipments to and from Cuba can now move quickly and safely by Air Express. This fast, new service handles practically all types of light and heavy cargo by specially equipped commercial transport planes, fitted with two-way radio communication and manned by expert personnel.

Automotive and machine parts, jewelry, dry goods, pharmaceuticals, birds, dogs and other animals, personal baggage and furniture make up the load of the usual southbound **all-cargo** plane. Consult us with regard to any class of cargo you may have. "Expreso Aereo" will serve you promptly and economically.



- Shipments transported between all principal cities in the U. S. and Cuba
- No transfer charge to airports
- Rate \$0.20 per lb. or per 200 cubic inches
- Minimum transportation charge \$1.10
- Low insurance rates

Through an arrangement with Acme Overseas Express, Division of Acme Freight, Inc., a special connecting service between forty-five domestic points in the Northeastern and Middle Western States is now available and Acme will issue a through joint airwaybill at the point of origin.

## EXPRESO AEREO INTER-AMERICANO, S. A.

*Address all communications to:*

**Edwin U. Woodard, General Agent, P. O. Box 2830, Miami 17, Florida**  
**MIAMI OFFICE: 333 N. W. First Ave.      TELEPHONES: 9-3441, 9-3449**

*Route Your Shipments By Aereo Express*



# Distribution Worldwide

● In the world of tomorrow the fundamental principle of all nations will be that of cooperation. We are approaching an era without precedent in all history . . .

—Oswaldo Aranha  
Brazilian Minister of Foreign Affairs

## EXPORTERS' SURVEY ON AIR CARGO SHOWS 33 $\frac{1}{3}$ % EXPECT TO USE IT

Approximately one-third of a group of 180 exporters responding to a survey undertaken by the foreign department of the National Assn. of Credit Men advised that their products were of a character where use of air transportation could be considered. The other two-thirds reported that their export shipments did not lend themselves to air transportation, according to an analysis of the survey published in the Chicago Journal of Commerce recently.

The extensive survey made by the association also brought out many interesting angles as to the impact of air transportation use on credit and sales terms in connection with sales to foreign buyers. A majority of the replies indicated that no shortening of credit terms or sales terms would ensue.

In addition to the 180 members who answered negatively or affirmatively as to whether their products could utilize air transportation, 12 members advised that there was a possibility of such use, 23 reported that some of their products might be suitable for air cargo, 5 said that small quantities might be shipped in this manner and 3 reported use in emergency cases. There were 14 responses that bulk, weight, low price of goods or current high cost of such transportation precluded use.

A total of 145 members out of 179 responding said that they anticipated no need for a change in their credit terms, while the remaining 34 members thought otherwise.

The responses concerning possible need for changes in merchandising methods evoked such comments as "possibly," "certainly," etc., from 31 members, while eight indicated elimination of distributors, seven anticipated a change in merchandising methods on some items and five reported probable changes because of new packaging, smaller lots, etc.

In addition to the members who responded specifically on possible changes in foreign markets, 36 members offered generalized opinions, such as opening inaccessible parts of Latin America.

One member departed from the prescribed questions to point out that the intensified postwar competition may force use of air cargo facilities and that final decision rests with the foreign buyer who pays the bills.

"This business of future air transportation of our goods is bigger than we think and will bring to some foreign traders (and more than suspect it now)

### Air Priorities

Exporters shipping cargo by plane, essential to the war program and in quantities sufficient to meet only urgent requirements, may request an air priority rating from the Air Transport Division, Office of Economic Warfare, Washington 25, D. C.

Important air shipments have suffered unnecessary delay, according to the Department of Commerce, because exporters failed to request air priority ratings.

Requests for ratings for air cargo to Puerto Rico, Alaska, Hawaii and the Virgin Islands, should be made to the Department of the Interior.

all the changes listed in your survey and many others," this member said. "Here is a point that most of us overlook. We exporters are not going to have the last word on this air transportation matter. Do not forget that we will have to be guided first of all by what our competitors and their governments do, and we will be having stiff competition from all over the world once this war is over. What is more important, the final decision will rest with our foreign buyers, who, after all, pay the bills. I think we had better ponder it carefully to determine what it will do for us and to us and to our goods and our markets."

### Foreign Trade Meeting In New York Oct. 25-27

The 30th annual foreign trade convention of the National Foreign Trade Council will be held in New York Oct. 25, 26 and 27 at the Hotel Pennsylvania.

## NEW SIMPLIFIED EXPORT CONTROLS FREE GOODS IN AMPLE SUPPLY

Important modifications in export control, to simplify procedures and allow greater freedom in commercial export operations, were put into effect Oct. 1. A number of Latin-American countries involved have agreed to the changes, and other agreements are expected, it was said. The Department of State and OEW announced jointly Aug. 28 that suggestions for export control revision had been sent to American Embassies.

### Latin American Imports In U. S. Up 28%

During the first half of 1943 general imports of merchandise from the 20 Latin American Republics exceeded total exports of merchandise to them by \$209,000,000, an increase of 28 per cent above the merchandise import balance of \$163,000,000 for the first six months of 1942, according to the U. S. Department of Commerce.

Both exports and imports of merchandise have increased from the 1942 level, the increase in imports amounting to approximately three times the increase in exports.

Significant increases in our merchandise import balance are noted in the trade with Mexico, Cuba, Chile, and Uruguay, while a large decrease occurred in our import balance with Brazil.

### Pan American Highway Construction Pushed

Pan American highway construction has been intensified on the section of the highway that will connect Oaxaca City, capital of Oaxaca State, with Puerto Angel, a vital port on the Pacific coast of Oaxaca. The paving of the Mexico City-Oaxaca City highway has been greatly advanced. This road is already extended to south of the city of Huajuapán de Leon. Work on the old Antequero road to the Isthmus of Tehuantepec has so far advanced that grading has almost been completed to the sierra—the heaviest and most expensive section. (S. H. Cooke).

### Goodyear Tire Plant Opened At Lima, Peru

The Goodyear Tire and Rubber Co. has opened a tire plant at Lima, Peru. It is the company's third on the South American continent.

## How Air Cargo Will Affect

# Four Basic Factors in Distribution

### No. 1—Effect of Time Savings on Turnover

**An increase in business volume by one-fifth, with better use of existing facilities through time saving, may amount to two per cent of the value of shipment for the producer and to a similar percentage for the dealer.**

MANY business executives to-day are asking themselves two vital questions: 1. Are the products of my company likely to move by plane? 2. What will be the effects of this new means of transport on various functions in the distribution of goods in international commerce?

Automatically widened markets will be one of the first effects for many companies. The domestic outlets, in terms of time, are immediately expanded to a world-wide basis. Transactions of firms in the United States with business establishments in places like Rio de Janeiro, Brazil, or Lima, Peru can be completed in less time than it took a little while ago to do business between firms located in New York and San Francisco. An inter-American market becomes the equivalent of our domestic market.

Naturally, such a development, expanding beyond the borders of nations, the area in which business of American concerns can be done with facility, necessitates a review of products to determine their air transport suitability and also a close study of the effects this time economy may have on all phases of distribution.

What then are the main factors that will determine whether a commodity can be transported by plane to the advantage both of producer and dealer?

There are four such factors, which, while causing numerous collateral effects in the distribution of goods, may be listed under the headings of Time, Value, Weight and Distance.

Whether a product has air transport suitability depends on the benefit resulting to it from saving in time, the value it represents on the assumption that the greater the value, the greater will be the advantages from quicker business returns by means of faster transport, the weight of the product and ability to replace heavier materials with lighter ones in its construction or by lightening the container in which it is transported and the distance involved in a transaction, since weight and distance determine the charges for air transport of goods.

Time enters the picture in a very im-

portant way. That time is money has been acknowledged in proverbs. In air travel, the element of time has been appraised in terms of expenses for salary of the executive and not solely in the actual cost of transportation. It has been recognition of this collateral saving in salary that has put business travel on an airplane basis.

The evaluation of time with transport of goods involves more factors than we encountered in passenger transportation by airplane.

The most pronounced effect of time saving with goods is linked with what is known as business turnover. What is business turnover, how does it come into this subject and why is it favorably affected by air cargo transport?

Business turnover may be fast or slow. Ordinarily, the speed of turning over a stock of goods will vary with the particular business under consideration. It may take a little or a long time for a certain kind of goods to be produced, distributed and sold to the consumer and the money returned to the producer for resumption in a new cycle of a business transaction.

The shorter the time necessary to go through such a process, the greater will be the ability to multiply probable transactions within a period of a year and yet avoid any excessive expansion in existing facilities of a firm.

Business turnover may be gauged by the number of times that cycles of transactions are completed. The shorter the element of time is tied up in the various phases of the cycle, ranging from delivery of raw materials to producer until payment of the finished goods by the dealer, the less will be the outlay per unit of product for cost of capital, rental of buildings, salaries of administrative executives and overhead generally.

Calculations made for general guidance indicate that indirect benefits from an increase in business volume by one-fifth, with better utilization of existing facilities through time saving, may amount at least to two per cent of the value of shipment for the producer and to a similar percentage for the dealer.



By **GEORGE F. BAUER**  
*International Traffic Analyst  
Air Cargo, Inc.*

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This is the first of four articles by Mr. Bauer on the main factors that will determine whether a commodity can be transported by plane to the advantage both of producer and dealer. There are four such factors: time, value, weight and distance.

Mr. Bauer is particularly well qualified to discuss these matters because of his background and experience. For 20 years, he was export manager of the Automobile Mfrs.' Assn. He initiated the World Trade League, and became its chairman. Previously, he was commercial agent in the Bureau of Foreign and Domestic Commerce; was an aid to the Financial Advisor of Haiti, and served in various Consular positions. He has traveled extensively and is versed in several languages. Recently, he was a delegate for the U. S. Department of State to the Pan American Highway Congress in Chile.

In addition, his knowledge of the fundamentals of commerce and transportation is broad and thorough, and he has had practical experience in many of the ramifications of international trade.—The Editor.

o o o

The airplane can help in cutting down the time needs in many phases of the cycle of a business transaction. What these separate time savings turn out to be will vary with the product and the nature of its production and distribution.

Sales over wide areas, as seem inevitable with many products, will, of course, mean that the time savings will become most pronounced as a result of air transport and assure much larger indirect benefits than in smaller areas.

The farther a market is away from a producer, the more time normally would be required to complete the cycle of a business transaction. With planes going at three-miles-a-minute speeds,

(Continued on page 87)

# Attitude of Official Washington on

## AIR vs. SURFACE CARRIERS

By ARNOLD KRUCKMAN

**T**HIS report, by a trained newspaperman, on what is in the mind of official Washington with respect to air cargo, now and after the war, is an important and noteworthy contribution. It gives a concise and thorough resume of pending and proposed legislation affecting all carriers; it elucidates several points, seemingly misunderstood, about some of the policies of the CAB; it gives a clear and succinct account of recent air policy developments on the international front, and it warns of over-optimism with regard to post-war miracles.—*The Editor.*

**T**HE McCarran-Lea Bill, made law in 1938 as the Civil Aeronautics Act, has always been regarded by Congress and by the Civil Aeronautics Board and by the aeronautical industries as definitely planned to prevent any control of air carriers by surface carriers.

You may get the clearest idea of what is the mind of the Civil Aeronautics Board by considering a quotation from the testimony of its Chairman, L. Welch Pogue, before the hearing of the House Interstate and Foreign Commerce Committee on House Resolution 1012, the Lea-Bailey Bill, the proposed law now before Congress which is designed to expand and strengthen the original Civil Aeronautics Act.

Mr. Pogue told the members of Congress:

"The Act (now Law) of 1938 provides that consolidations, mergers, and acquisitions of control involving air carriers are unlawful unless it is found that they will not be inconsistent with the public interest. It is expressly provided, however, that no approval of any such transaction shall be given if it would result in creating a monopoly and thereby restrain competition. Special restrictions are prescribed with respect to mergers or consolidations between air carriers and carriers engaged in surface carriage. The Act directs that no such merger, or acquisition of control shall be approved unless 'it will promote the public interest by enabling . . . (the surface carrier) to use aircraft to public advantage in its operation and will not restrain competition.'

"This clause," Mr. Pogue carefully emphasized, "is a very important one, particularly at this time, because of the interest which has been aroused by a case to which I will refer. A related provision of the Act requires approval (by the CAB) of interlocking relationships in the form of common officers and directors between air carriers and between air carriers and other common carriers and companies engaged in aeronautics.

"The important case (heretofore mentioned) decided under the merger section involved the acquisition of control of American Export Airlines by American Export Lines, a steamship company. This acquisition was disapproved on the theory that, in inserting in section 408 the requirement to the effect that the requisition (where it involves a surface carrier) must promote the public interest to use aircraft to public advantage in its operations, it was the intention of Congress to carefully restrict the participation of surface carriers in the air transport field. The requirement was construed to mean that aircraft must

be used in a manner which would be auxiliary, supplemental (subordinate) to the surface transportation of the acquiring company. It is apparent that this construction of the Act is an important one."

There is no doubt Congress intended that the Law should operate as it has been construed by the CAB. When the CAB recently ordered the American Export Lines to divest itself of the control of the American Export Airlines, by Nov. 1, 1943, the Order referred to Section 408(b) of the Civil Aeronautics Act and declared: "We are convinced that a construction of the Civil Aeronautics Act which rigidly limits participation of the older forms of transportation in the air transport field is not only sustained by the language of the Act itself, but is also in harmony with well established Congressional policy."

The Board undoubtedly confirmed its conviction about Congressional policy by making a study of the protracted hearings and other records which preceded the enactment of the law by Congress. It is clear other agencies of Government have the same understanding of Congressional policy.

Recently the Transportation Association of America, with headquarters in Chicago, attempted to persuade the U. S. Board of Investigation and Research (Transportation Section) to approve a plan to integrate all transportation into coordinated systems under a regional unification. The Board was inclined to sympathize with the Association. But the Department of Justice appeared at the hearing and strenuously opposed the proceedings as contrary to law and to the policy of Congress.

The Association was defined as a railroad organization although it was headed by former Representative Samuel B. Pettingill of Indiana. It was pointed out that the manager of the Association is a railroad man, Donald D. Conn.

### Distribution Conference At Boston Oct. 18-19

Post-war business planning will be the main theme of the 15th Annual Boston Conference on Distribution, Oct. 18-19 at the Hotel Statler, Boston, Mass.

Among the speakers will be the following: R. V. Fletcher, vice president, Assn. of American Railroads; David E. Grant, Pan American Airways; J. M. Bickel, chairman, planning committee, Carrier Corp.; Sir Gerald B. Campbell of the British Embassy; Beardsley Ruml, treasurer, R. H. Macy & Co., and author of the so-called Ruml tax plan; Dr. S. Morris Livingston, U. S. Department of Commerce; Paul G. Hoffman, president, Studebaker Corp., and chairman, Committee for Economic Development; Edgar V. O'Daniel, vice president, American Cyanamid Co.; Paul Hollister, vice president, Columbia Broadcasting System, and others still to be announced.

Reservations may be made by writing the Boston Conference on Distribution, 80 Federal St., Boston, Mass. Daniel Bloomfield is director. The conference is sponsored by the Retail Trade Board, Boston Chamber of Commerce, in cooperation with Harvard University Graduate School of Business Administration, and Massachusetts Institute of Technology. (Wellington)



The hearings brought out that it was the intent to create from 11 to 17 regions, each able to supply rail, truck, water or air service, under a coordinated plan. The record shows that it is the purpose to modify the Transportation Act of 1940; to secure the repeal of applicable provisions of the Sherman Anti-Trust Act; the repeal of the Panama Canal Act; and to modify other laws which would prevent the establishments of an over-all transportation agency. It is anticipated the issue will be vigorously fought when Senators Burton K. Wheeler and Bennet Champ Clark introduce a bill specifically prohibiting the end sought by the Transportation Association of America.

It is certain the railroads and the bus lines and other surface carriers will fight the interpretation of the Civil Aeronautics Act outlined by Chairman Pogue. The Denver and Rio Grande Western Railroad has filed an application with CAB for permission to operate a network of airlines in its territory. Here in Washington they assume that the application is primarily intended to bring the problems of the railroads before Congress and the public. The air people already are raising the cry that many lobbyists are converging on the Capitol to fight for and against the changes impending in the Civil Aeronautics Act if the Lea-Bailey bill is enacted.

The surface carriers will make a stiff fight to secure an interpretation which will allow any surface carrier to operate an independent airline. The big fight over this question is expected to come when the Greyhound application is considered. This application requests permission to operate helicopters over a great number of routes, stretching from the Atlantic to the Pacific and from Canada to Mexico. The total mileage is recorded as 49,130. Most of the areas to be served would be small towns be-

## The Shape of Things to Come

(From Sports of the Times. By Robert F. Kelley, New York Times)

**T**HE airplane would change things . . . "In that new world, the airplane probably would make more changes than anything else in sport. Baseball, for instance. There might be Eastern and Western major leagues instead of the National and American. There could be regular schedules on a truly national scale, with games on both sides of the country. Teams playing one week in California, and the next in New York. World series with special glider trains commuting between cities as the games progressed.

"That idea of specials has possibilities. Mike Jacobs building a huge arena out in that part of the country where the dry season could guarantee clear skies and those skies spotted

with incoming loads of customers, flying to see the new A.E.F. champion make his bid for the title that Sergeant Joe Louis took into the Army with him.

"And from other shores. The Gundar Haeggs of the future casually dropping in from the corners of the earth for national track championships. Dan Ferris might even import some of those long-legged tribesmen from deep Africa, people, they say, who could 'jump over the Woolworth Building.'

"Walter Hagen climbing aboard with a golf team to spend a week-end in friendly combat on an ancient Scottish links. Tennis players discussing the effect of the stratosphere on the stringing in racquets."

tween large cities. The chief purpose would be to carry cargo. Greyhound, and other surface carriers, are convinced the present construction of the law is an arbitrary assumption of its intent by the CAB, and that the Courts and Congress will be inclined to give freer play to the initiative of the surface carriers who wish to go into air transport.

Eleven of so-called feeder lines, chiefly planned for cargo transport, purpose to use helicopters, the planes that need no runways to land or start. Aside from the 25 bus, truck, railroad and steamship lines which seek to operate air cargo service, there are 26 other applications for similar operations which come from these solely engaged in airline operation. This makes a total of 350,777 miles of air cargo service now

in suspension in the files of CAB. Obviously very few of these applications will be processed until after the war. This means that 1,500 towns in 29 States must get along without air service for a year or two, at least.

It is quite certain, however, in the postwar period, if the present sentiment survives, small cities of about 5,000 population, and even less, will be given preferred priority when licenses for operation are issued. These services, always geared chiefly on cargo and mail, will be pointed at intercity service between the small cities as well as traffic with a trunk line.

CAB thinks the service between small cities will be far greater in the course of time than the traffic fed into trunk lines from small cities. The pick-up service now operated by All-American Aviation in Delaware, New York, Ohio, Pennsylvania, West Virginia, and Kentucky, serving 100 cities and towns on a route of 1,400 miles is considered the model for the time being. As you know, it has a special pick-up gadget which permits the planes to deliver and collect cargo without stopping.

The general thought in Washington seems to be that these so-called feeder lines which are not feeder lines, at all, must use small airplanes. The expectation is that the smaller plane to be used for this purpose is already planned and will be in production as soon as the war permits. It is anticipated the small-town cargo plane will have one engine with a gross weight under 10,000 lb., capable of landing from 50 ft. altitude within 1,500 ft. CAB officials hold that the small-town service should have at least two schedules per day.

Government is so earnest about this service that the intimation has been allowed to leak out that it might be possible to finance the earlier phases of its development by Government subsidy

(Continued on page 90)

## Trucking Industry Has Little to Fear From Post-War Expansion of Air Cargo

**E**XPANSION of air cargo will offer no threat to the trucking industry in the postwar era, according to executives of Mack Trucks, Inc. On the contrary, they foresee an increase in truck needs, in direct proportion to the growth of air freight, a recent report states.

Airlines will get an expanded share of the high-value, light-weight merchandise, perishable commodities and an increase in mail volume, and there will be a close tieup between the trucking industry and the airlines, executives of the Mack organization believe. The trucks will be needed to transport the air freight to and from the air terminals located miles outside the city limits.

These reactions were stated in a reply to Donald A. Duff, general traffic manager, Northeast Airlines, Inc. Mr. Duff requested Mack

engineers to consider developing special truck models designed to handle cargo to and from air terminals. These vehicles would receive and deliver the cargo directly to the freight planes.

In his letter Mr. Duff declares, "Air cargo transportation with improved and larger airplane designs in the postwar years, cannot succeed without the assistance of truck transportation between the point of origin of cargo shipments and the airline terminal, which of necessity is located out in the country."

Both motor truck and airline executives agree that the principal reason for the use of higher cost per pound air freight will be its speed, and the only time interval the shipper will be interested in, is the total door-to-door time involved.

# War-Time Strains and Post-War Stresses In the American Trucking Industry



By JOHN V. LAWRENCE  
Managing Director,  
American Trucking Assns., Inc.

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**I**MPROVED operating methods, new and better equipment, will open opportunities for motor carriers in the "after victory" period that few of us can visualize at this moment.

Collaboration of the airplane and the motor truck, without doubt will have a further marked influence on this trend.

In our contacts day in and day out with motor carriers, we find that a very definite trend indicates that operating methods have been undergoing considerable evolution under war needs. To obtain full use of the limited facilities available, carriers of necessity have had to change their methods of operation in many respects. How much of this will remain as a permanent factor in the operating picture remains to be seen. No doubt many things will be learned that will be of lasting benefit to the industry in the years to come.

How well has this program worked? Just what has been the result of these analyses? Perhaps the best answer to this question is found in an examination of quarterly reports filed with the Interstate Commerce Commission by Class I common carrier by motor. There follows a summary of the changes in mileage and tonnage, 1942 compared with 1941, for these carriers as shown in the Commission's publications:

| 1942                | Change in mileage | Change in tonnage |
|---------------------|-------------------|-------------------|
| First quarter.....  | + 1.9             | + 9.4             |
| Second quarter..... | - 7.8             | - 0.7             |
| Third quarter.....  | - 1.8             | +11.4             |
| Fourth quarter..... | - 3.5             | +18.1             |

**Increased tonnage movement with no increase in number of vehicles, maintenance troubles and manpower shortages cited as outstanding current problems. Post-war development of aviation, plus war experiences, held likely to bring improved operating methods, better equipment and closer ties between air and highway carriers.**

In considering the figures below it must be borne clearly in mind that they are for-hire carriers. For competitive reasons, these carriers have always maintained a policy of conservation to achieve maximum utilization of equipment. In addition, the demands on for-hire motor carrier transportation were enormously increased as a result of the war. In the light of these considerations the record of achievement of the for-hire carrier is striking indeed.

The table showing increased tonnage movement with decreased miles operated becomes more striking when one realizes the volume of tons handled has been increasing right along without any corresponding increase in the number of vehicles operated. In other words, truck loading reports to American Trucking Associations, Inc. showed that in 1942 all previous records had been broken, but the trend continues in 1943, and the first half of this current year showed a substantial increase in truck loadings over last year.

Of course, it can be said that this record tonnage movement has been made

with some sacrifice of preventive maintenance on the vehicles carried on in normal times. With a return to the point where parts and mechanics are available, things that are either lacking or woefully short in these days, it is still probable that a similarly high operating performance can be maintained side by side with an adequate maintenance program.

In keeping present day equipment going, under the war strain, carriers have learned a great deal about getting more out of what they have. Space here does not permit a thorough discussion of this phase of the subject, but mention of one item will illustrate what is meant. In years past, most carriers merely carried on each truck one spare for each size of tire on the vehicle. When a tire failed it was merely removed and the single spare replaced it, without regard to the fact that on a dual wheel the two tires may not have matched.

In their efforts to conserve rubber, carriers have found great advantage in careful attention to matching dual

## Post-War Possibilities

**S**OME of the post-war possibilities cited by Mr. Lawrence deserve special attention. High octane gasoline, for example, is likely to influence the future design of all internal combustion engines powered with gasolines.

"A change in octane rating from 70 to 95 would permit a compression ratio of 65 per cent higher, fuel consumption 25 per cent less with an increase of 40 per cent in the horsepower output.

"The use of multiple small motors is another development now in the experimental stage. It is believed that two small motors and the fittings and power line to go with them will weigh half a ton less than one large motor of equivalent horsepower with accessories. On level running, only one motor needs to be used, thus cutting fuel consumption practically in half. The additional motor can be cut in to give flexibility, speed and hill-climbing ability, thus reducing time en route and saving wear and tear on low gear operations.

"New lighter metals developed for war-time

use may promote much saving in weight in body and chassis constructions. Reduction of one ton in the weight of a vehicle would so increase payload it would yield on each average unit approximately 70,000 additional ton miles of transportation per year.

"One of the post-war developments that will bear close watching and be most interesting will be the natural affinity of the airplane and the truck for high-speed transportation.

"How great the growth of freight transportation by air will be remains to be seen. Most of the heads of the existing airlines have not indicated that the volume carried would be very great compared with the total tonnage moved in this country.

"Of course, this is the outlook of the people who are in the business today. It may be that one of those young kids, now captain on a bomber, not knowing that the thing cannot be done, may be just the fellow to open the eyes of the world to plane transportation in the future."

tires. It has required a lot of organization work in spotting these matched duals over the route. The organization work has been accomplished, however, and is one thing that will probably remain in post-war operating practice. The result has been a tremendous increase in the mileage obtained from tires.

Shortage of manpower and motive power have obliged many carriers to increase the ratio of trailers to power units. The shuttle type of trailer operations has been extended over routes covering greater distances than ever before. By this method one carrier with a route of over 500 miles has increased the average annual mileage on its tractors from slightly over 90,000 miles a year to over 180,000 miles. This, of course, has been prompted by the needs of war traffic. While the increase may drop off in peace time, it stands to reason that this operation, and others of a similar character, will still operate its power units on greater annual average mileages than ever before.

Another factor that may have a continuing, although modified effect is the collaboration between motor carriers developed under the various ODT conservation orders, notably Nos. 3-A, 6-A and 17. In the drive to secure full loadings in each direction a vast number of arrangements have been made between carriers, on lease arrangements which do not come within the scope of a more formal joint action plan. The development of the joint action plan requiring formal approval of the ODT was much slower due to the need of a great many explanatory meetings in the field to which the carriers were invited. In the early stages of the ODT program many if not most of the carriers were confused as to the difference between activities under the Joint Information Office, vir-

tually a return loads bureau, and a joint action plan. In the latter case it was not something entered into by all of the carriers in a certain area, but rather a joint undertaking, a welding of the operations of two, three or more specific carriers to secure the greatest possible use of their combined equipment and facilities.

From a slow start the joint action activities have shown healthy and steady growth. As this article is being written 66 joint action plans have been approved by the ODT covering practically every section of the country. A number of proposed plans have been submitted to ODT and are waiting action by that organization at this time.

Just how much of these joint action plans will remain in effect when the war is over remains to be seen. These cooperative undertakings by two or more carriers, however, are sure to have a marked influence on future operating

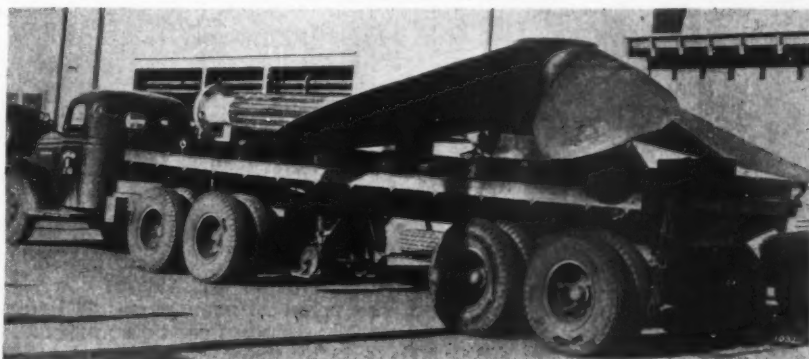
methods. It would be reasonable to believe that in some modified form and within the framework of legislation then existing these plans which prove beneficial will remain in the years to come.

On the matter of new and better equipment, space does not permit a detailed discussion. We can merely review a few of the high spots.

First of all, we might consider the matter of the vastly increased facilities developed during the war in the production of high octane gasoline. This, no doubt, will have a marked influence on future design of all internal combustion engines powered with gasoline. It will have a marked effect in inducing manufacturers to design engines with higher compression ratios and consequently more power output for a given weight of the engine.

To indicate what this means it might be pointed out that a change from 70 to 85 octane gasoline permits a 30 per

**HEAVY-DUTY EQUIPMENT** is vital to the war effort. Here is one of a fleet of Fruehauf semi-trailers hauling a huge propeller and section of a ship's propeller shaft at the Sausalito Yards near San Francisco. Note the 19 tires, and read what J. V. Lawrence says about matching dual tires in the accompanying article.



**WOMANPOWER PLUS** is shown in this picture. The trailer is loaded with TNT. This Fruehauf trailer with its GMC tractor operates within the confines of a 7500 acre TNT plant. It operates 24 hours a day and is loaded to capacity each trip.

cent increase in compression ratio, a 13 per cent decrease in fuel consumption, and 23 per cent more output of horsepower.

On the other hand a change in octane rating from 70 to 95 would permit of a compression ratio of 65 per cent higher, fuel consumption 25 per cent less with an increase of 40 per cent in the horsepower output.

Developments in this direction are not very definite at this time, but a lot of thought has apparently been given to the use of multiple power units in a truck or tractor.

In a single motor the relation of weight to horsepower apparently increases materially in the heavier motor brackets. The use of multiple small motors, either two or three hooked up to a transfer case so that any one or more of them can be used at the same time, has been experimented with, as has also the use of a small motor on the rear axle of combinations.

One manufacturer definitely expects to come out after the war with a two-motored job, and we have heard of sev-

(Continued on page 122)





Fig. 1

## Trucking Accessibility Stressed in Plans For Proposed San Francisco Airports

**Terminal and transportation facilities of coast port, taxed to capacity by war, reported to need more air fields closer to traffic centers . . . Two concrete plans are being pushed . . . Trucking interests said to favor air cargo development.**

By ELSA GIDLOW

**T**HE San Francisco Bay area, taxed to capacity in its terminal and transportation facilities by wartime industrial expansion and military activity, needs more airfields and needs them closer to the centers of traffic. It needs them so badly it may begin to get new airport facilities even before the war ends.

The air is full of predictions and there are at least two concrete and practicable plans. Research groups and committees are busy studying proposed sites. The San Francisco Chamber of Commerce has had an Air Transport Committee at work for over a year gathering data on locations, types of planes, kinds of cargoes suitable for air transport, weights, speeds, types of runways and attendant problems. There is a Twelve Counties Planning Committee one of whose major projects is an airbase on tidelands in the Bay. There is the Metropolitan Developers group which was first in the field with a practicable plan, also proposing utilization of Bay tidelands and this group has just added a tie-in "El-Way" which would connect the airbase and its motor traffic with San Francisco and the Penin-

sula, overpassing traffic jams with super-speedways.

The plans and projects do not necessarily conflict or compete. Air and land transportation experts say this region will require five or six major airports and at least 20 subsidiary ones. O. C. Richerson, assistant vice-president in charge of operations, United Air Lines, thinks the estimate conservative and predicts that in addition to the major bases, 40 smaller ones will be needed here to adequately handle transcontinental,

trans-Pacific, and feeder lines, shuttle services and private fliers.

At present, there are only Mills Field and Oakland Municipal Airport to take care of commercial air traffic. The Treasure Island airbase has been taken over by the Navy and the Navy Department now decides it is going to keep this site although Representative R. J. Welch protested before Congress in June that the action "severs the economic aviation life-line of a great city and community." A number of new bases have been established for military use in this area but, of course, all details connected with them are strictly guarded by the Army. No one can foretell how many of these newly established military fields may be available for military use after the war, and

**T**HE freight end of air transport will need and want trucks, which must tie in to handle distribution efficiently. Air freight developments must coordinate with trucking.—Roy B. Thompson, secretary-manager, Truck Owners' Assn. of California.

since their location is also secret, speculation concerning their usefulness would be futile.

Facilities of Mills Field and the Oakland airport are being expanded as far as possible right now; but airline executives have said there is a limit beyond which you can't expand and preserve efficiency, not to mention economy and safety.

It all sums up to this: "San Francisco Bay Area needs another commercial airbase, and needs it now, needs it in San Francisco Harbor." The words are those of Major Ernie Smith who was a flight combat officer in the first world war and, in 1926, the first civilian to fly from the California mainland to Hawaii. Since 1926, Smith has been preaching the need and the advantages of an airbase built on tidelands in the bay. At present, assistant to the vice-president in charge of traffic with TWA, San Francisco, Smith is a leading figure in Metropolitan Developers. Associated in this group are Maj. Gen. Walter C. Sweeney; Ralph Brunton, radio executive, and Roy C. Hackley, Jr., an attorney.

In January of this year Metropolitan Developers, through the engineering firm of Donald R. Warren Co., drew up its plan for the Transpacific Airbase. The plans were revised at the end of February and made public. The illustration (Fig. 1) tells the story of this proposed airbase more concisely than many words could. It calls for the fill-in of tidelands north of the eastern end of the San Francisco-Oakland Bay Bridge, a site now owned by the cities of Oakland and Emeryville, and the Santa Fe Railroad. Its location would provide a junction for air, water, rail, and motor traffic. It is adjacent to transcontinental railroad terminals on the Eastbay side, provides for 10 ship docks, is served by the Bay Bridge and the Eastshore highway, making it easily accessible to trucks, and it



*Courtesy The Iron Age*  
Global Projection: This San Francisco centered azimuthal equidistant projection of one side of the globe, developed by Dr. Joseph E. Williams of San Francisco Junior College, demonstrates the future relationship of world airlines and, possibly, inter-continental trade. From San Francisco, Hawaii, Dutch Harbor, Nome and New York are approximately equidistant.

can be served also by short-trip feeder plane service or shuttle.

To provide for increased traffic movements through San Francisco without first solving the problem of downtown

congestion would hardly tend to efficiency, or encourage co-ordination between air and truck transportation facilities. This has been taken care of by a second project just announced by Metropolitan Developers. It is an elevated highway system which would loop the heart of San Francisco's downtown business section and provide for a free flow of over 70,000 motor vehicles daily. The El-way makes direct connection with the Bay Bridge and hence with the Transpacific Airbase. Details of the El-way are illustrated in Fig. 2.

To facilitate the movement of traffic, the "El-way" would have long sweeping curves and gentle grades. On the plan, ramps to and from the roadway are provided at various intervals for the convenience of traffic.

"The design of the structure," the report states, "considered both the roadway and the area below it, as each would influence the general beauty of the city. Beneath this 88 ft. wide "El-way" provision has been made for parking 10,000 automobiles. The roadway has a division strip for its entire length, this eliminating the great hazard of interference by traffic from the opposite direction. Emergency sidewalks of 5 ft. width with an ornamental rail will enhance the beauty of the structural design.

(Continued on page 95)

Fig. 2



# Post-War Commercial Aviation



By **THOMAS WOLFE**  
Vice President, Western Air Lines

THE airplane is one of the most perplexing of man's inventions. Containing the power of life or death over nations at war, it likewise is destined to exert tremendous sway over the political, economic and social life of the world in peace. History has proved that relatively few people in the world fully appreciate its potential in advance of its demonstrated ability. The dagger of war was at our throat before our nation as a whole would believe experienced aviation authorities as to the airplane's

*There is a vast amount of new traffic awaiting the development and expansion of aviation. Manufacturers, airlines and the government should join in an effort to explore, evaluate and prepare for the era of commercial aviation so that the industry will not have to weather a period of ruinous floundering before new routes are established and commercial equipment is ready.*

*Cities and nations should trim their sails for an expansion of 40 times present air operations. Routes and terminal facilities should be started in advance of the transition. Commerce and industry must anticipate a conversion to air economy.*

sign and construction engineer, and to the traffic engineer is tremendous. Production of aircraft has moved far ahead of our ability to harness this thirty billion dollar industry for peace time utilization. Aside from the political influence and post-war negotiation effect upon air transportation, the engineer's and traffic expert's solution to the following problems will have a far reaching effect.

## Loading and Stowage . . .

Embraced in this category is the elimination of time loss and breakage. Ground time sabotages the ability of the plane to a high degree.

An example of the average air ex-

press package travel on the airways today for a 1,070-mile haul ends up something like this: Basic cruising speed of the airplane, 187 m.p.h.; including scheduled speed of the airplane, 137 m.p.h.; including terminal time, handling and servicing, 127 m.p.h.; including pickup and delivery results in an over-all time of 63 m.p.h.

While this final door-to-door speed is improving, the engineer can attack a 51 per cent waste. Included in this is the application of loading and warehouse machinery, trucking, level fuselages, tiedown arrangements and the creation of containers that will save countless time, tare weights and breakage.

## Packaging . . .

It would not be an exaggeration to say that packaging for air transportation is still in the "linen duster" stage. A study of 50,000 shipments involving a million pounds of air cargo indicates that one-third more cargo can be handled by intelligent packaging. Outmoded practices create the following waste: tare, 18 per cent; time, 10 per cent; volume, 5 per cent.

## Terminal Facilities . . .

Close-in terminals with trunk highways to distribution centers, coupled with adequate warehouses and refrigeration, have received too little attention. This subject also embraces hotels, air-  
(Continued on page 100)

TABLE I

| CATEGORY                            | 1941                   |                    | POST WAR                |      |
|-------------------------------------|------------------------|--------------------|-------------------------|------|
|                                     | BASIC CHARGE TO PUBLIC | YIELD TO OPERATORS | ESTIMATE OF BASIC RATES |      |
| Passengers (passenger mile) . . . . | .0550                  | .0514              | 1st Class               | .043 |
|                                     |                        |                    | 2nd Class               | .028 |
| Mail (ton-mile) . . . . .           | 2.400                  | 1.256              | Express                 | .20  |
| Express (ton-mile) . . . . .        | .810                   | .572               | Cargo                   | .10  |

capabilities. Now in the transition from a master of destruction in war, to a servant of commerce in peace it will probably have to suffer many setbacks before the nation will provide an intelligent, clear-cut program for the tremendous task ahead.

The last war gave us the motor vehicle to the tune of 30,000,000 units and a vast network of highways, coupled with the reorganization of our commerce and society. This war will give us global flying which will create new neighbors, ideas and commerce. It is this latter phase of aviation upon which this discussion will dwell.

The commercial challenge to the de-

● This paper was presented at the recent West Coast Regional Transportation and Maintenance Meeting of the Society of Automotive Engineers, at San Francisco.

TABLE II

| CATEGORY             | CLASS                          | AVERAGE RATE | AIRLINE PENETRATION FACTOR |
|----------------------|--------------------------------|--------------|----------------------------|
| Passengers . . . . . | 1st Class Rail . . . . . (PM)  | 4.1          | 60%                        |
|                      | 2nd Class Rail . . . . . "     | 1.8          | 10%                        |
|                      | 1st Class Motor . . . . . "    | 1.4          | 10%                        |
| Mail . . . . .       | Air . . . . . (KM)             | 2.4          | 100%                       |
|                      | 1st Class . . . . . "          | 4.6          | 80%                        |
| Cargo . . . . .      | Freight, Rail . . . . . (KM)   | .9           | .5%                        |
|                      | Express, 1st Class . . . . . " | 10.5         | 65%                        |
|                      | Express, 2nd Class . . . . . " | 6.0          | 10%                        |
|                      | L. C. L. Rail . . . . . "      | 5.0          | 5%                         |
|                      | Motor . . . . .                | 3.9          | 5%                         |



# Today's Trucking Problems Are Unique

**Walter F. Mullady, nationally known trucking executive, in interview with D and W correspondent, declares if motor transportation industry is to continue healthy either costs must come down or rates must go up.**

By H. H. SLAWSON



Walter F. Mullady

Reynolds

THIS nation takes its motor trucks too much for granted, in the opinion of Walter F. Mullady, president, Decatur Cartage Co., Chicago, and nationally prominent leader in trucking industry councils. He is vice-president both of the American Trucking Assns., Washington, D. C., and the Central Motor Freight Assn., Chicago.

In 1917 we entered World War I with 326,000 registered trucks throughout the entire nation. Today, close to 5,000,000 trucks, rolling over the highways, are performing transportation miracles to further the war effort in ways that were undreamed of a few years ago.

They are doing it, as Mr. Mullady points out, in the face of unparalleled handicaps. These are officially recognized by government authorities but they are doing little or nothing, Mr. Mullady says, to alleviate the handicaps.

This neglect, he maintains, cannot continue. Every day sees a truck here and a truck there being consigned to the scrap heap, after having been run far beyond its ordinary retirement period, until, like the one-hoss shay, it literally drops in its tracks. If this continues, and

if the industry's manpower continues to be steadily drained off, Mr. Mullady warns, the nation's motor transportation system will soon revert to the 1917 set-up, or worse.

Most encouraging feature of the present situation, Mr. Mullady finds, is the attitude of the truckers themselves. They are not lying down. Forgetting former natural competitive rivalries, they have pitched in and, through mutual cooperation, are accomplishing wonders. From his own experiences as operator of a fleet of 350 units throughout Illinois and parts of Indiana, Ohio and Missouri, and from his nation-wide contacts, as vice-president of the American Trucking Association, and vice-president of The Central Motor Freight Assn. in Chicago, he can

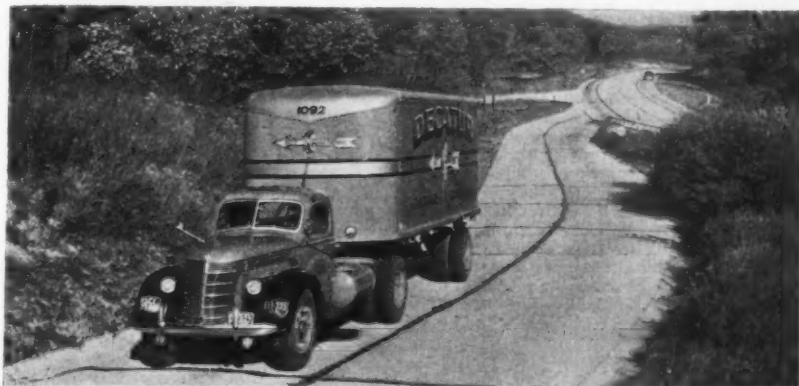
cite innumerable examples of that cooperative spirit.

He tells of cross country runs by truck convoys loaded with vital war freight, which reached shipside on split second schedules, because all along the thousands of miles those trucks traversed, eager executives of many companies personally did everything possible to speed the caravans through their territory without a hitch.

He tells of tank truck operators working 24 hours a day, seven days a week, so that railroad tank cars could be utilized to the utmost for long distance hauls to relieve the eastern petroleum shortage. And he tells how war plants, in more than one case, would have been forced to shut down, had not motor truck operators, disregarding demands of their personal business, offered their equipment to rush needed materials to relieve critical shortages.

"All these instances," Mr. Mullady said recently, "could never have hap-

Tractors and trailers like these make possible the movement of raw materials and finished products indispensable for war production, military operations and civilian use.



pened, had not the motor transport industry been imbued with a high sense of responsibility to the nation and a spirit of sacrifice keyed to the thought that in the national emergency private interests must be forgotten."

Office of Defense Transportation directives, restricting the movement of trucks unless loaded to specified maximum weights; limiting duplication of routing by competing companies; forbidding round-about routing and otherwise seeking to conserve tires and equipment, have made operations difficult, he says, but also have been an important factor

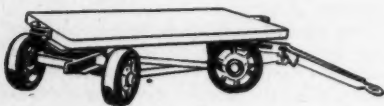
(Continued on page 107)

# A MODERN MANUAL OF MATERIALS H

## Trailer, Industrial (Four-Wheel Steer)

**Definition**—A four-wheel industrial trailer with all wheels of the same size, with front and rear axles mounted on fifth wheels, or the wheels mounted on knuckle steers, and all four wheels attached together through cross reaches or linkage so that they steer simultaneously. The drawbar can be connected to either end of the trailer, and is generally removable.

**Description**—The four-wheel steer industrial trailers are built in capacities



Four-Wheel Steer Industrial Trailer

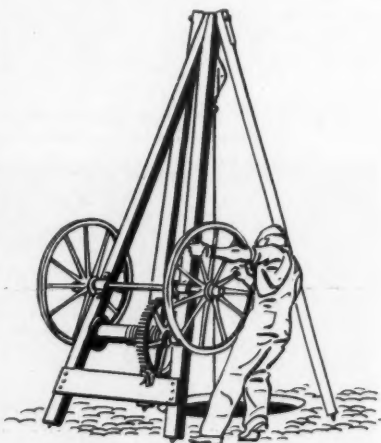
from one ton to 30 tons, for industrial use. The smaller capacities, in one to five tons, have platforms 3 ft. x 8 ft., 4 ft. x 8 ft., or 5 ft. x 10 ft., with a height of 20 in. to 25 in., while the larger tonnage trailers generally have platforms 5 ft. x 10 ft. or larger, and because of the larger wheels for the heavier tonnage to be handled, the height of the platform will exceed 25 in. On the small tonnage and small platform units, either the rigid axle or the knuckle steer can be used, but the tendency is to go more to the rigid axle construction, both for large and small capacities. A four-wheel steer trailer is different than a reversible steer trailer because on a four-wheel steer trailer, the front and rear axles are linked together at all times, and all four wheels steer simultaneously. This four-wheel steering makes for accurate trailing, but requires a larger radius for turning than the caster type, and care must be taken when pulling away from platform or curbs to steer the train gradually so as not to bind the wheels due to their tendency to steer sideways from the trailer in front. The drawbars on these trailers are generally removable, and, therefore, are not of the safety type which locks in a vertical position. However, the drawbars should be arranged with hand size coupling loops so as to make for spotting convenience. Stake pockets, either within the frame, or attached to the outside of the frame, should be provided at end and sides.

**Application**—This type of trailer is used on a wide range of application, within industrial plants, wharves, warehouses, etc., for hauling in tractor trailer trains (See tractor trailer trains). Unless they are equipped with pneumatic tired wheels they should be used on hard surface roads and good floors, not over soft ground. On this trailer, the wheels are located at an equal distance from each end, so there is less likelihood of tipping up due to uneven loading on the deck, as in the case of the fifth wheel and caster type trailer.

## Derrick (Sulky)

**Definition**—Light capacity derrick, having four poles, mounted on two wheels, so that the equipment may be moved from place to place by resting the wheels on the ground and folding the poles on the axle.

**Description**—A sulky is a form of tripod derrick, except that it is, in a sense, self-contained in its portability due to the arrangement of the poles and their being mounted on the two wheels with the axle fastened to the poles. The winch gear is mounted directly under the axle on one of the poles, and because of the light capacity, this type of derrick is generally hand-operated. When the unit is erected as shown in the above illustration, the poles form a rectangular pyramid secured at the apex by a bolt. A means of suspending tackle is provided and the hoisting line passes from the block to a winch secured to two of the poles near the base, and adjacent to the axle on which the transporting wheels are mounted. In operation, the winch gear meshes with a



Sulky

pinion on the sulky axle, and is operated by turning the sulky wheels. The large wheels for turning the pinion axle gives plenty of leverage for lifting fairly heavy loads. Derricks of this type do not require guys and may be set up over deck openings, wells, man-holes, or at any point where the work to be done may be brought directly under the center of the derrick.

**Application**—This type of equipment is quickly portable, and, being a self-contained unit, can be set up easily and is particularly applicable for use on construction work for the lifting or lowering of materials into openings, either for the lowering or raising operation. It is not designed for raising or stacking very high above the level on which the tripod frame rests, although it can lift a load sufficiently for loading to small trailers, trucks, etc., providing the tripod frame is of sufficient height for this lift.

## Hand Truck (Two-Wheel)

**Definition**—A small, two-wheel truck with two handles, used in handling of merchandise of comparatively small dimensions, over short distances.

**Description**—These trucks are known by various names and are of a wide variety of constructions. They are called freight trucks, stevedore trucks, cargo trucks, etc., and are known as the "eastern pattern" and the "western pattern." The difference in the pattern is basically in the wheel and axle arrangement. On the "western pattern" the axle is mounted to the framework, and the wheels are arranged on the inside of the frame. The framework is straight. On the "eastern pattern," there is a tapered frame, narrower at the bottom than the top, and the axle is fastened to the bottom of this framework, and the wheels are placed outside the frame, protected by wide steel guards so that they will not rub against the material being handled. The framework of either pattern can be built of steel, wood, or a combination of both, and with bent handles or straight handles. They are generally constructed with three or more cross members, depending upon the service they are to perform. They can be constructed with one or two vertical center straps. On the side frame, near the handles, leg brackets or supports are generally provided, so that the truck can be loaded or placed at rest with the load, in a horizontal position. The wheels should be equipped with anti-friction roller bearings, wide face, and of fairly large diameter, that is, somewhere between 7 in. and 12 in. The framework should be constructed with smooth round edged corners to prevent damage to materials handled, and the nose irons should be of good steel construction, as considerable lifting of the load is preformed by these irons. A number of these trucks can be equipped with safety brakes, operating against the outside surface of the wheel, so as to assist the hand trucker in handling heavy loads down steep inclines.

**Application**—The two-wheel hand truck is primarily a hand-operated piece of equipment, and therefore should be restricted, as a general rule, to short hauls, not exceeding 150 ft. in any one direction. They can be used on wharves, piers, freight transfer platforms, for

Two-Wheel Hand Truck



# LS HANDLING EQUIPMENT

• This is the fourth installment of Mr. Potts' modern manual of materials handling equipment. It is being published serially in D and W exclusively. Each major type of materials handling equipment will be named, defined, illustrated, described and its usual applications explained.



By MATTHEW W. POTTS  
Materials Handling Editor

All drawings by Harry Johnson

the unloading of cars, boats, motor trucks, etc., especially on odd-shape boxes or where miscellaneous sizes do not lend themselves to being handled quickly with full mechanical equipment.

## Barrel Truck (Two-Wheel)

**Definition**—A special truck using a single axle with two-wheels, and designed primarily for handling barrels, casks, drums, etc.

**Description**—Some commodities or containers are handled so frequently and on such a wide variety of movements or operations that it has been found advisable to construct special equipment for this purpose. This is true of drums, barrels, kegs, and similar containers. Under normal operations, the ordinary two-wheel hand truck requires two men for loading a heavy drum or barrel, for the reason that the nose iron is not built for getting under the drum and acting in the right lever angle. Also, there is nothing to hold the top of the drum against the framework of the truck. Therefore, special two-wheel hand trucks have been designed for this purpose, some of single handle construction as shown in the illustration, others with two handles, and a wide range in the details and materials of construction. Basically, however, they are all on the principle of making the truck a lifting bar able to clamp the container to the truck framework. The majority of these trucks have the wheels arranged "eastern pattern," and either in the single handle or in one of the vertical

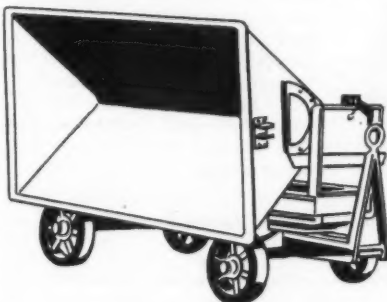
center straps, a clamp is arranged to grip the top of the package being handled. Other trucks use chains or an extended clamping bar to come over the far side of the barrel or drum. The principle is the same, and the idea is to make it a one-man operation rather than a two-man operation when loading or unloading the truck.

**Application**—The name of this truck practically signifies the application, namely, for manual handling of barrels, kegs, drums, hogsheads, etc., over short distances.

## Trailer, Industrial (Side Dump)

**Definition**—An industrial trailer with body mounted on the superstructure, for dumping to either side of the trailer.

**Description**—This type of trailer is



Side-dump Trailer

generally a body and chassis combination. However, the side dump body trailer can have the chassis of either the caster, fifth-wheel, four-wheel steer, etc. The important thing is to have the right type of easy dumping bodies, of the gravity rolling type, arranged so that the dumping can be on either side of the chassis, and the body should be properly balanced to dump almost without any effort upon unlocking, and at the same time, balanced to roll back into loading position when empty. The body should be constructed so as to dump free or clear of the trailer chassis wheels, and at a right angle, to insure free, clean unloading. The body should be arranged with a positive locking device to prevent accidental dumping while in transit, and also equipped with safety stops to prevent rolling off the chassis during

the dumping movement. This type of trailer can be designed in various capacities, the average running somewhere between three-quarters and two yards.

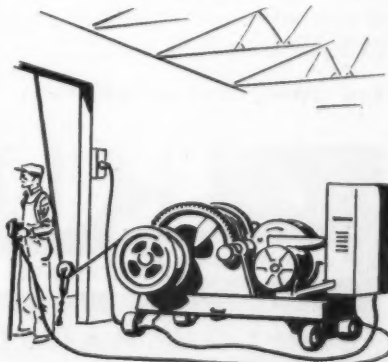
**Application**—This type of trailer is most applicable for the handling of bulk materials, such as coal, sand, fertilizer, cement, concrete, chemicals, etc., and should be operated in tractor trailer trains or pulled individually by power tractor or truck.

## Winch, (Portable)

**Definition**—A small winch which is built in a supporting frame in such a way that it can be easily unfastened and moved to a new location for operation, sometimes mounted on skids or wheels for ease in transportation. A winch which does not depend on fixed foundations and framings to support it.

**Description**—Winches are used to operate many type of equipment, employed in materials handling operations, and when attached to some particular type of equipment they become the hoisting or haulage units of that piece of equipment. For example, if they are attached to a ship they are considered a part of the ship's gear and are mounted on foundations or bolted to the equipment on which they operate. However, winches are required for operating hoisting or haulage lines; operating through a system of block and tackle, which is not connected to any particular piece of materials handling equipment. For this purpose a portable winch unit

Portable Winch



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Two-Wheel Barrel Truck





# ROSS CARRIERS and LIFT TRUCKS

**HANDLE LONG  
MATERIAL  
FASTER and at  
LESS COST!**



THE speed with which materials can be fed to the production lines often determines the productive capacity of a plant. In scores of America's war plants ROSS 70-H Carriers and ROSS Industrial Lift Trucks are important links in the production set-up, bridging the gaps between warehouse and factory, and between departments.

- Here's why:**
1. Long, heavy, bulky materials handled *faster* in and out of storage.
  2. Storage facilities utilized to maximum capacity—materials can be stored to greater heights.
  3. Need for additional labor is minimized—costs are reduced—man-power can be released for other work.

**FLEXIBLE**, high-speed, cost-cutting ROSS Carriers and Lift Trucks will help your plant maintain the production necessary to meet today's urgent demands. Our experienced engineers and representatives are at your service, ready to help you solve your handling problems . . . Write today for Bulletin DW-103.

THE ROSS CARRIER COMPANY, BENTON HARBOR, MICHIGAN

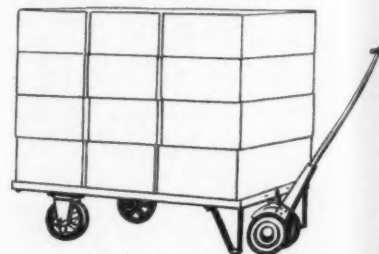


has many advantages. The portable winch can be either electrically or gasoline operated. When electrically operated, it generally obtains power by means of a plug-in connection. In some instances, the controls are directly at the winch, the winch operator receiving his instructions through a signalman. On some of the electric portable units, the winch is provided with a remote control or portable controller connected to the winch motor by a flexible cable, as shown in this illustration, which permits the operator to stand in view of the work, while the winch itself may be placed in any convenient location. Naturally, the winch would be secured if the load is of such capacity that this is required.

**Application**—Portable winches have considerable application on stevedoring and wharf operation, where they can be used for hauling and lifting, and as supplementary winches to assist in unloading cargo which cannot be handled by the fixed ship's gear. They are also of advantage on construction jobs, for lifting skid hoists, and on similar operations.

## Semi-Live Skid and Jack

**Definition**—A platform skid with two rigid wheels at one end and two rigid legs at the other end, with pin or eye attachment at the leg end so that it can be picked up by means of a two-wheel



Semi-Live Skid and Jack

jack handle, sometimes called a jack lift or skid jack, for manual transportation.

**Description**—The semi-live skid and jack is an adaptation of the hand lift truck and skid principle can be used in conjunction therewith. Platforms are generally of skid dimensions, from 30 in. x 48 in. to 42 x 70 in., and with under-clearance of either 7 in. or 12 in., as may be required. They can be used as hand-operated equipment only, in which case they are the same as a hand lift truck and skid. The advantage is that the jack handles do not cost as much as a regular hand lift platform truck and therefore there can be more handle units available for use. Since the skids are equipped with two wheels, they generally cost more than a four-legged dead skid. If the semi-live skid is designed with two rigid wheels in caster frame mountings at one end, then the unit can be picked up either with the jack handle or it can be picked up with a hand lift truck, an industrial power truck of either the low lift or high lift type, or with one of the power-propelled hand lift trucks.

**Application**—This system has particular application in stockrooms, consolidation  
(Continued on page 121)

# Waterways and Terminals ...



## New Terminal Tariff On Tennessee River

Terminal tariff No. 1 covering terminal service charges at its new Tennessee River terminals has been issued by the Tennessee Valley Authority. The tariff applies to the TVA-operated terminals at Decatur and Guntersville, Ala., and at Chattanooga and Knoxville, Tenn. Services will include transfer between barges on the one hand and trucks and railroad cars on the other, and storage for a limited time in the freight houses.

The tariff was effective Sept. 1 at Chattanooga and Sept. 15 at Decatur and Guntersville. At Knoxville, where terminal construction has just started, effective date will be announced later. Subject to the rules and regulations contained in the tariff, the terminals are open to the users of any barge service on the Tennessee River, several of which are already operating.

The rates and regulations are designed, the Chicago Journal of Commerce says, to be in line with rates for similar services on the Mississippi-Ohio-Illinois river waterways and are uniform at the four terminals.

A total of 33 barge lines are already operating on the Tennessee and connecting waterways, and a considerable long-distance traffic has developed. Of this total, four are common carriers and the remainder are private or contract carriers.

## Post-War Needs Cited For Lakes' Shipping

Restoration of Great Lakes shipping and the replacement and modernization of Great Lakes vessels is vitally necessary in the postwar period to protect commerce in the Great Lakes area, the Milwaukee Board of Harbor Commissioners recently told the United States Maritime Commission.

Domestic shipping on the Great Lakes, especially the package trade, has been virtually stopped by the transfer of freighters to ocean service, the commissioners pointed out. Overseas shipping

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## FIVE-POINT PROGRAM RECOMMENDED FOR RAIL AND WATER CARRIERS

### 'Invasion Packaging'

Danger of immersion in water has resulted in new methods of packaging at the Delaware and Shackamaxon plant of the Pennsylvania Sugar Co.

In this new method of "invasion packaging", as it is called, sugar for the 60-lb. bags made for the army is packed in six 10-lb. cotton bags, which in turn are packed in one large multiwall bag made of six-ply asphalt sheets. The sewn ends of the bag are then immersed in wax. Bags thus packed are said to survive many of the perils of wartime shipping by sea. (Dash)

direct from the Great Lakes also has been almost completely disrupted. This trade must be given postwar encouragement, the commissioners suggested, "for the national interest requires a healthy rail-water competitive situation."

The commission urged that the 13 shipyards on the Great Lakes be kept busy after the war, pointing out that if the proposed St. Lawrence deep seaway project goes through many new vessels will be needed for Great Lakes-overseas service.

## Port Authorities to Have New Orleans Meeting

The American Assn. of Port Authorities will hold its annual convention Oct. 19-22, at New Orleans, La. Mark H. Gates, of San Francisco, president of the AAPA, will preside.

## Union Operates Army Warehouse

Complete operation of an Army warehouse in the Los Angeles Harbor district was taken over Sept. 10 by the International Longshoremen's and Warehousemen's Union with Army approval.

It was the first time a labor union has undertaken to supply the government with a full crew, including gang bosses. The warehouse, using 40 workers, is being managed and operated under a non-profit agreement under which the Army pays the overhead costs.

No contract has been signed, but Union officials disclosed that it was expected contracts would be entered into if and when the union takes over operation of other Army warehouses.

An immediate result was the release of troops from the warehouse to active military service.—(Herr)

A five-point program calling for the voluntary cooperation of rail and water carriers was recommended at the annual convention of the Wisconsin Warehousemen's Assn., at Milwaukee, by its Ports and Terminals Committee. The program as outlined by Anthony L. Fischer, committee chairman, is as follows:

1. Abolition of the present 30-day free-time storage period on all through-moving traffic, and in lieu thereof provide only such storage services as are actually necessary and incidental to transportation and delivery.
2. Limit the future free time period on all local traffic to strictly 96 hours.
3. Assessment of all charges to be based on actual cost for handling and storage not actually necessary and incidental to transportation.
4. Establishment of a storage-in-transit privilege on all lake and rail through-moving traffic, to apply at all storage warehouse industries, which traffic can presently be stored only under exclusive tariff arrangement of the rail and water carriers under so-called dock-house rules.
5. Establishment of a local switching rate from lake and rail carriers' docks to industries on all local or through traffic.

## Mississippi Terminal May Suspend

Possibility that the Municipal Terminal at Greenville, Miss., may be forced to suspend operations because of declining revenues caused by wartime conditions has been reported.

"Unless the terminal can obtain sufficient tonnage to pay the cost of handling and a much restricted overhead we will be forced to close our doors," Mayor Milton C. Smith, operations chairman, stated recently.

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# Fire Protection for CARGO TERMINALS

By LEONARD F. MAAR  
Safety Research Institute, Inc.

**F**IRE Prevention Week, observed nationally, Oct. 3-9, turns attention to fire safety in cargo terminals, the motor freight terminals of today, and the air terminals of tomorrow where air and motor cargo will be correlated.

Adequate airport facilities for handling this new kind of traffic have not even reached the blue print stage, though undoubtedly the war experience of the Army Transport Command will provide a certain amount of basic information upon which commercial enterprise will be able to draw. Out of this experience and the demands of commerce, a new type of terminal may be built, the general outlines of which have been described in these pages by Dr. John H. Frederick and others.

The problem of protecting this structure from fire has some parallels in the motor terminal of today, only it is more complex. However, the elements of hazard are not unique individually. Separately, the fire problems of the new terminal, involving plant, service, freight, planes, and trucks have been met and solved. When the time comes for engineers and architects to design terminals embodying the facilities for all these elements, they will have the advantages of this experience and of a fresh start so that the construction of this new type of structure may be expected to set new standards of fire safety.

Looking into the future, it is safe to predict that fire protection engineers will insist upon the separation of the

functions of the terminal from other functions that may be at all hazardous, such as that of the garage or plane over-haul base.

Refueling and serving of planes, trucks, or other motor-driven equipment will take place in such locations as will eliminate the hazards of gasoline fires and explosions. Planes will be moved into loading position by tractors.

The terminal structure will be of one-story, fire-resistant construction. Storage areas will be limited in size, and steel fire doors will further subdivide large floor spaces to limit the spread of fire and minimize the exposure of freight to fire. Loading platforms, ramps, and runways will be of reinforced concrete.

Orthodox measures of fire protection will be followed throughout the plant. Wet pipe sprinklers will be installed in heated areas, and dry pipe systems will protect loading platforms exposed to the weather. Standpipe systems and yard hydrants will be standard equipment.

There will be considerable emphasis on first aid fire appliances with a view to providing equipment that will knock out any kind of a fire before it can spread to destructive proportions. Portable extinguishers of suitable types will be numerous and located throughout the plant. Large wheeled machines, capable of delivering larger quantities of extinguishing materials, will be available in necessary locations.

Some extension of regulations concerning the shipment of explosives, containers for flammable liquids, and other hazardous materials may be necessary, but these will come with experience. Local fire laws may have to be amended in some instances to cover situations that cannot be foreseen now.

To follow some of these parallels into the motor terminal of today, we find the same principles of fire protection are applicable. Since new construction is out of the question until after the war, operators will have to make the best of what they have and try to improve the fire safety of existing structures.

Where possible, all hazardous functions, such as the servicing of trucks, should be separated from the terminal, and all garage work should be conducted in a separate building.

Since combustible buildings must continue in use for the duration, every precaution should be taken in them to prevent fire. Unlike the warehouse, where material may be stored for indefinite periods of time, terminals should move freight quickly, keeping as little as possible on the premises from day to day, in order to reduce the amount of freight exposed to fire. Rules of good house-keeping should be carefully observed, and frequent inspections should be made of the terminal to make certain that unnecessary accumulations of rubbish are disposed of without delay. If it is advisable, a no-smoking rule should be adopted in unsafe areas, and it should be enforced.

Heating equipment should be inspected and repaired as necessary at the beginning.  
(Continued on page 110)



# WATCH DEPRECIATION!

It affects your costs and profits and the income tax you pay. Because of the difficulty of getting new equipment, depreciation means more than ever, and it behooves management to examine the accuracy of its write-downs for wear, tear and obsolescence.

By FRED MERISH

DEPRECIATION is a major problem to those engaged in warehousing and distribution, particularly the depreciation of rolling stock. This important element of operation has many angles little understood and too seldom studied. Because of the difficulty of getting new equipment and the high tax rate today, depreciation has developed more "bugs" than ever before, so it behooves every management to make a detailed survey of its records to determine the accuracy of write-downs for wear, tear and obsolescence.

If you do not compute your depreciation accurately, your costs will be inaccurate, and your profits will be affected adversely if your write-offs are underestimated. Moreover, the erroneous calculation of depreciation will affect the income tax you pay. Tax is now a major expense. With tax rates the highest in history, every dollar deducted means a much bigger saving than formerly. If you short-change yourself on depreciation, you pay more tax.

Today, users of rolling stock are operating units of three kinds: (1) Rolling stock in good condition not written off the books as yet. (2) Rolling stock written off the books and which normally would have been replaced with new equipment before this but is kept rolling because of the inability to purchase replacements. (3) Rolling stock that is written off the books but kept in operation because the users habitually disregard profitable serviceability. To clarify depreciation as it applies to these three kinds of rolling stock in our war economy, we have divided the subject into six main sub-divisions.

## Purpose . . .

Depreciation serves a three-fold purpose. It is an internal expense charged against profit so that the cost of equipment, pro-rated over its life, may be recovered in the prices charged for service. It reduces asset value to reflect wear, tear and obsolescence annually. Instead of charging an investment for working equipment to the year of purchase, thereby distorting the profit picture, causing costs to soar abnormally, and profits to drop likewise, the investment is charged off annually for the life of the equipment, providing greater stabilization of costing and pricing.

The fact that cash is paid out in one year for working equipment is no reason why each subsequent year, in which it is used, should not bear a proportion-

ate part of the outlay. It keeps inflation off the balance sheet.

Too many concerns have old equipment on their books at original cost prices or inflated values, whereas, it is worth little more than scrap value and should be written off and replaced with modern units. The statements of such concerns show a bloated net worth because they have never written down their assets with annual depreciation charges or have been figuring too little depreciation.

## Computation . . .

Those using equipment in good condition but not written off the books as yet should check over their depreciation schedules now. If the schedules were prepared before Pearl Harbor when the units covered fewer miles, the depreciation charge-offs today may be too low. Such users should revise their depreciation schedules. If they were based upon equipment operated eight hours daily and it is working 16 hours daily, obviously, it will wear out twice as fast and the charge should be increased accordingly. So to play safe with your costs and selling prices, accelerated depreciation or an increase in the rate charged, may be necessary, depending upon conditions. Then, too, those using rolling stock or any other equipment longer hours because of wartime demands, should give consideration to accelerated depreciation, because it may be permitted on the income tax return, thereby reducing the tax.

The government does not specify the method for computing depreciation on income tax but seems to prefer the straight-line method whereby you charge off depreciation in equal annual installments over the useful life of the unit. All that the government demands is that the depreciation allowance be reasonable and that you can justify it.

Some concerns appraise their rolling stock each year but this may mean a small charge one year, a big charge the next, not only complicating tax preparation but also the costing process. The government may permit depreciation based upon mileage, say 2c. a mile, but here, too, the annual write-off may be high one year and low the next, based upon the degree of traffic activity.

The reducing installment method of computation is also used, the heaviest charges falling during the early years of equipment use on the assumption that a machine is second-hand in three months and would sell for half its cost. This reasoning is unsound, it seems to me, although some authorities favor it, but depreciation measures the service of a machine, not the market value. The average business must be considered a going enterprise and its operating expenses handled accordingly.

During the early years of equipment use, repairs and maintenance are low. In later years, this expense mounts. By loading the early years with heavy depreciation charges, this tends to equalize the equipment expense over the years. All in all, you will have less trouble within your organization and minimize misunderstandings with the Treasury Department if you use the straight-line method. Once you have selected the method of computation, you cannot change it without the consent of the Commissioner of Internal Revenue.

## Item Accounts . . .

Sometimes all equipment is listed in one account with a single depreciation reserve, or grouped with other equipment having about the same average useful life, but I believe that item accounts, wherein individual records are maintained, indicating the cost or other basis and a depreciation reserve for each item, will prove most satisfactory because I have found that depreciation rates have been computed more accurately by this method, hence, income tax payments are kept at minimum and selling prices more profitably computed than where other methods were used.

According to Bulletin "F" issued by the government, the lives considered reasonable for motor transportation vehicles, are:

|  |         |
|--|---------|
| Salesman automobiles . . . . .                 | 3 years |
| Motorcycles . . . . .                          | 4 "     |
| Trailers . . . . .                             | 6 "     |
| Light gasoline trucks—local . . . . .          | 6 "     |
| Light gasoline trucks—long distance . . . . .  | 4 "     |
| Medium gasoline trucks—local . . . . .         | 8 "     |
| Medium gasoline trucks—long distance . . . . . | 6 "     |
| Heavy gasoline trucks—local . . . . .          | 10 "    |
| Heavy gasoline trucks—long distance . . . . .  | 8 "     |
| Electric trucks . . . . .                      | 10 "    |
| Tractors . . . . .                             | 6 "     |
| Diesel trucks—local . . . . .                  | 10 "    |
| Diesel trucks—long distance . . . . .          | 8 "     |
| Tank trucks . . . . .                          | 10 "    |

(Continued on page 112)

# LEGAL NEWS...

By LEO T. PARKER  
Legal Editor



## Testimony Favors Customer

In many instances suits are decided on the basis of conflicting testimony. Under such circumstances the court endeavors to give weight to most convincing evidence.

For example, in *Lubell v. Turner*, 49 N. E. (2d) 885, Mass., it was shown that the New England Storage Warehouse Co. was sued by a customer who had placed several valuable rugs in storage. The customer testified that the Clark Moving Co. called and everything in the house was removed, including all rugs. All of the household goods were delivered to the warehouse company. Mr. Clark testified that he went to the home, saw the rugs, which had been rolled. He did not recall the number of bundles, but testified that everything was moved out of the house. The truck arrived at the warehouse between 4:30 and 5 p. m. By that time the power had been shut off, and the rugs were placed on the elevator and left there.

The warehouseman's manager testified that he received from the Clark Moving Co. a miscellaneous lot of furniture and three bundles of rugs. The bundles were never opened, but were placed in the cold storage chamber of the warehouse, which is kept locked and to which only four of the officials of the warehouse have keys. He testified further that after the power has been shut off for the day, goods would be left in the elevator over night, and marked, taken up, and stored the next morning. The elevator is in a part of the warehouse which is locked and guarded by watchmen at night.

In consideration of this testimony the higher court held the warehouseman liable for the value of the two rugs which the customer claimed were not delivered to him when the Clark Moving Co. transported the goods from the warehouse to a new home. This court said:

"We think that upon the evidence the judge could find that the two rugs in question arrived at the defendants' warehouse and were put into their custody, and that they never were re-delivered by the defendants to Clark Moving Co."

## A Watchman Case

Modern higher courts hold that a night watchman who performs services such as guarding and protecting goods processed or produced for shipment in commerce, while they are being processed or produced, or thereafter while awaiting

shipment in transportation, is entitled to the benefits of the Fair Labor Standards Act.

For example, in *Ashenford v. L. Yukon & Sons Produce Co.*, 172 S. W. (2d) 881, Mo., an employe filed suit against his employer to recover unpaid minimum wages and overtime; liquidated damages, and attorney's fee. The suit was based upon the Fair Labor Standards Act, in the aggregate sum of \$4,000.

The testimony proved that the employer is engaged in the business of producing, handling, transporting and selling fruits, vegetables and agricultural produce for sale in interstate commerce. The employe was employed as night watchman, janitor, loader and unloader, time keeper, and operator of the heating plant to prevent fruits, vegetables and produce from freezing.

The employer contended that he was

not within jurisdiction of the Fair Labor Standards Act because the watchman was engaged in handling agricultural produce for sale in both intrastate and interstate commerce and he did not separate the time he watched over goods for interstate and intrastate shipments. However, the higher court held the employe entitled to full recovery, and said:

"We conclude a watchman is not required and could not, separate the time he watches over goods for interstate and intrastate shipment when they are all stored in one building. . . . If a substantial part of an employe's activities related to goods whose movement in the channels of interstate commerce was established by the test we have described, he is covered by the Act."

## Bills of Lading

Under the Federal Bill of Lading Act, a "bill of lading" is a muniment of title, and its holder is entitled to demand possession of goods shipped when they reach their destination. The carrier is relieved of liability on account of carriage of such goods when it delivers goods to such holder. The same law is effective with respect to warehousemen.

For illustration, in *Abilene Storage Co. v. Eugene Fruit Growers' Assn.*, Texas, 17 S. W. (2d) 511, it was disclosed that a broker obtained a shipper's order bill of lading on a carload of beans which was delivered to a warehouseman.

The court held that the warehouseman was under a duty to deliver the beans to the order of the broker until informed that the beans in the car did not belong to the shipper.

## LEGAL

## Questions and Answers

... The Legal Editor will answer legal questions on all subjects covered by D and W. Send him your problems, care of this magazine. There will be no charge to subscribers for this service. Publication of inquiries and Mr. Parker's replies give worthwhile information to industry generally

### Broken Water Main

**Question:** A few weeks ago a water main in the street broke and water ran into our warehouse basement causing considerable damage to stored goods. The city refuses to pay the owners of the goods. What are our rights? Great Falls Transfer Co.

**Answer:** A city is not liable for damages caused by break in a water main, unless the testimony proves that the city officials were negligent. In other words, if the city officials and employes had no reason to believe that the main would break, and had not been notified that a dangerous condition existed, the city is not liable. The same law is applicable with respect to your warehouse company. You are not liable for the damage to the stored goods, unless the evidence proves that your negligence resulted in the damage.

Therefore, since it appears neither the city officials nor the officials of your warehouse company were negligent, it is

my opinion that the owners of the stored goods cannot recover for their losses.

### Stolen Goods

**Question:** About two years ago we accepted goods for storage for mere accommodation and without pay. The owner of the goods had no job and is a relative. Some of his goods were stolen and he has sued us for damages. Please advise us about this point of law. Roberts Warehouse Co.

**Answer:** The modern rule is that a warehouseman must exercise due care and reasonable precaution to protect and preserve the property placed in his custody and for which he receives compensation. In other words, the law requires such care as an ordinarily prudent person engaged in the warehouse business, or the owner of his own goods, is in the habit of exercising.

The latest classification recognizes three kinds of bailments, viz: (1) If the bailment is without compensation for the benefit of the owner of the goods, the  
(Continued on page 122)

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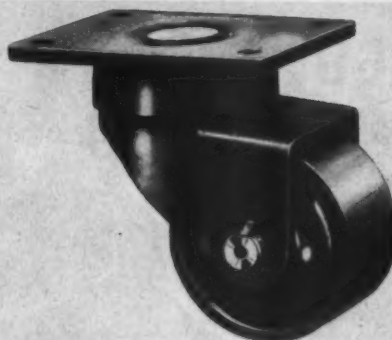
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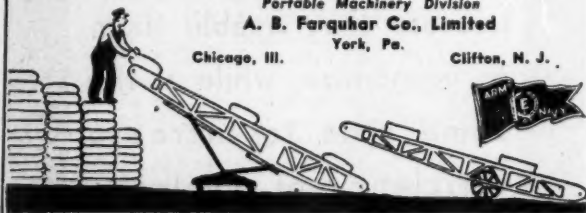
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## New Tailgate Loader

Anthony Co., Inc., Streator, Ill., manufacturer of hydraulic hoists and bodies, has announced that it is now manufacturing and distributing a hydraulically operated tailgate loader, which, it is said, makes it possible for one man to load or unload from platform or van bodies heavy awkward barrels, crates, packages, etc., that normally require two or more men to handle. Raising, lowering or holding the tailgate at any elevation is accomplished with one lever only.

The entire mechanism is said to lock up with the body of the vehicle when in a raised position. If desired the wooden, steel reinforced tailgate may be used conventionally without operating the lift. The 5 in. hydraulic cylinder stops automatically at ground and body level, and, according to the model, is said by the manufacturer to be capable of lifting from 750 lb. to 1,500 lb.

This piece of equipment not only saves manpower, but cuts loading and unloading time, reduces hernia accidents and minimizes damage to valuable merchandise. Additional features are explained in descriptive literature, which may be secured without obligation from the manufacturer.

## New Spring Tester

The P. A. Sturtevant Co., Addison, Ill., manufacturer of Sturtevant torque wrenches announces a new tool for testing compression springs in sizes to 2½ in. diameter and 7 in. in length. This new tool not only make it possible to measure the recoil pressure of a spring when compressed to any predetermined length, but makes it possible to accurately match sets of springs as valve springs for internal combustion engines, the manufacturer states.

In design and principle the Sturtevant spring tester is said to differ radically from previous spring testers in the following ways: It is operated with any accurate standard torque wrench, the torque wrench not only serving as the operating lever, but also providing the measuring element; in this tester a sound device is used to indicate when the spring has been compressed to the test point, thus eliminating the need for the operator watching multiple dials; compression of spring is against a rigid platform to prevent

Don't assume you can't get equipment—Inquire.

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accumulated errors in reading; being a lever-operated, quick action device that bolts to any bench and being extremely inexpensive, it permits general distribution to logical test, check-up and inspection points throughout a plant, the maker says.

The manufacturer reports this tool so engineered and compensated that it is in itself inherently accurate and hence test readings will be as accurate as the Torque Wrench used. Developed originally as a means of accurately matching valve springs of airplane and automotive engines, the first of these tools in the field are finding a much wider range of application. They are being used not only for testing springs of all sorts within their capacity, but also for proof-testing strength of press fits and for light arbor press production operations where they permit the rapid application of accurately gauged pressures.

### New Fire Extinguisher

A new carbon dioxide fire extinguisher is now being manufactured by The General Detroit Corp., Detroit, Mich. It is said to have entirely new structural features. According to the manufacturer, it will literally freeze fire. The carbon dioxide discharge of the new extinguisher known as C-D/FOG is said to kill fire on a few seconds by penetrating to every corner where fire exists, excluding and replacing the oxygen necessary to combustion. It controls fires in oils, greases and flammable liquids, it is said, quickly and easily. Details are obtainable from the manufacturer.

### Plastic Valve Cap

Plastics have found another new application in a new all-plastic tire valve cap which is said to seat perfectly and hold air up to 400 lb. pressure without the need of washers.

According to the manufacturer, this plastic tire valve cap is molded in one piece, and possesses such strength and ruggedness that it withstands abuse on equal terms with metal caps. In addition to being self seating, it is said to possess

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further advantages such as: An unthreaded "finder skirt" that acts as a guide to simplify application when valves are awkwardly placed; a wide knurled band for firm gripping and a domed head which provides adequate clearance of the valve core pin.

Because of the single dome-shaped universal design which provides for all tire valve applications, it is expected to simplify supply and inventory problems. It is made by the Lacey-Webber Co., Kalamazoo, Mich.

### Fire Extinguisher Case

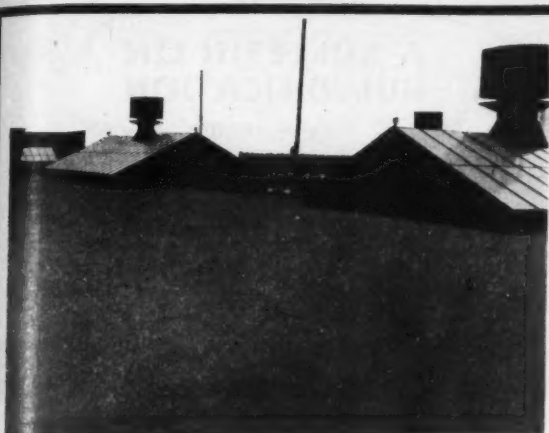
To reveal any attempt to tamper with fire extinguishers, American-LaFrance-Foamite Corp., Elmira, N. Y., has introduced a new extinguisher container known as the Tampluss Case.

Constructed of non-critical, tough cardboard stock, it is said to safely house the extinguisher from the reach of un-

(Concluded on page 68)

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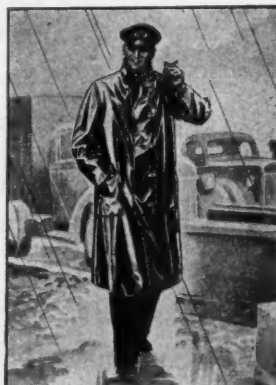


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**TRUCKS, SPECIAL (Hand)**

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authorized persons, and yet allows of instant removal for legitimate use. One quick pull on a sealed string breaks through a gummed insignia paper sealing strip and permits the case to completely unfold. The extinguisher can immediately be lifted from its bracket.

The tamper case can be reused, it is said, by simply reservicing the extinguisher, replacing it in the case, and resealing it with special insignia tape.

**Stabilized Tramrail Carrier**

Cleveland Tramrail Division of The Cleveland Crane & Engineering Co., Wickliffe, O., has announced a new stabilized tramrail carrier, that is said to solve one of the oldest problems in hoisting, that of suspending a load rigidly with the use of the usual flexible hoisting ropes.

By a simple patented arrangement of the ropes to form a triangular suspension, a load can be held rigidly in place so as to eliminate longitudinal, lateral and rotational sway, it is said. The rope angles have a definite relation to one another and have been worked out according to a mathematical formula.

A load can be raised or lowered through a considerable distance and yet, with nothing more than the hoisting ropes supporting it, will remain as rigid as if guided in an elevator shaft, the manufacturer claims. Even if the load should be considerably unbalanced, the carrier, it is said, will hold it rigidly in place.

Another desirable advantage of the carrier is said to be the feature permitting the tilting of a load in either direction with relation to the rail on which the carrier is propelled. If it is desirable to rotate the load, this may be accomplished through use of a trunnion-type load bar. Thus in most cases it is possible to place any part of a load in any position that will be most convenient and accessible.

The stabilized carrier may be operated on two standard Cleveland tramrails or on a double girder tramrail crane bridge. It also may be operated on the regular type overhead Cleveland tramrail rail on each side of which are provided parallel flat rails or I-beams for the support of stabilizing rollers attached to the carrier. This rail arrangement keeps the carrier level at all times, regardless of type of load or its position, and permits moving the carrier through switches to other tracks.

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## The Case Against Government Control Of the Warehouse Industry

By E. W. FORD

Vice-President,

Warehousemen's Assn., Port of New York

o o o

A SMALL but active group of warehousemen in various parts of the country have again brought up the subject of Federal regulation for the warehouse industry. A bill is understood to have been proposed which would place warehousing under control of the Interstate Commerce Commission.

Of course, the question of State or Federal control of our industry is one that has come up a number of times in the past. It is now being sponsored, presumably, by warehousemen who fear they will be unable to compete successfully for business if competition becomes keen and who feel the need of government control to hold their fellow warehousemen in check.

In the past the demand for regulation of one kind or another has usually come from those warehousemen who were over-extended as to space, or were operating facilities which because of location or type of construction, could not attract sufficient business to be operated profitably. Now, however, we are told that inasmuch as Federal regulation for

our industry is inevitable, because we have been classed as a branch of the transportation industry, all other parts of which are regulated, we should place our industry in the hands of those in Washington who are ever willing to add to their control of business, especially where businessmen admit fear of their inability to conduct their operations successfully under competitive conditions.

One other reason advanced for seeking control at this time is because a large amount of excess space is expected to be thrown on the market when hostilities cease, mostly Army Depots and other government buildings scattered throughout the country. It is argued by proponents of regulation that the proposed act, when written, will probably contain a provision for a certificate of convenience and necessity under which no expansion

will be permitted on the part of any warehouse unless the ICC can be shown that there is a need for additional space in the area under consideration. They also intimate that a "grandfather clause" will be incorporated in the proposed bill, which will prevent new interests from entering the warehousing field, thus doing away at one and the same time with the threat of competition from government buildings and from the large number of men who have been trained to operate government warehouses and who might desire to make a career of warehousing when peace returns.

All indications point to the probability that after hostilities end it will be necessary for the United States to maintain the largest standing army in our history, and we will also have the world's greatest navy. This means that these services will require, permanently, a number of the large depots built for their use during the war. A considerable amount of present government space is

(Continued on page 108)

# Cold Storage . . .



## Critical Shortage of Storage Space Revealed by Harvest of Bumper Crops

The nation this fall is harvesting a bumper food crop. Vast quantities of foodstuffs must be put into cold storage to prevent spoilage. But there just isn't enough space in refrigerated warehouses to accommodate the food stockpiles for the armed forces, lend-lease, and additions to domestic supplies. Because of this a number of less perishable foods such as evaporated milk, canned meats, flour, dry cereals, etc., have already been denied refrigerated space by government order. It is reported that several other items may have to be added to the list.

According to government statistics, there are approximately 800,000,000 cu. ft. of cold storage space in the United States, only about 34.7 per cent of which can be used for freezing. The remainder is cooler space, i.e., 30 deg. F., or over, which is used for less perishable commodities.

### Locker Plants

The frozen food locker industry, which was born a novelty and grew up into a luxury, has become recognized as a wartime necessity, says *Tide*, magazine of advertising and marketing. Recognition of the industry's importance to the nation's food program followed a recent WPB order to release critical materials for 350 new locker plants in rural areas of the United States.

Already in use are some 5,400 plans which average 300 lockers each, and almost every concern has a sizable waiting list. Most of them are in midwestern rural areas.

On Aug. 1, 80 per cent of all available space was filled compared with about 65 per cent normally.

Storage movements of meat this fall are expected to climb to unprecedented levels because the Army and FDA hope to create a meat stockpile during the seasonal glut which will tide them over late periods of shortage.

The greatest pinch in storage facilities is expected to develop at Minneapolis, Omaha, Kansas City, Cleveland, Milwaukee, Philadelphia and western New York State.

Materials for building new plants are limited. The increase for the past two years has not exceeded 40,000,000 cu. ft. and the FDA now has priorities for an increase of only an additional 2 per cent.

The only new cold storage projects of any significance now under way are three warehouses which are being built on the Pacific Coast. They will have 2,000,000 cu. ft. of space and will be completed in about five or six months. There has been only a small amount of conversion from cooler to freezer space.

On the other hand, some of the big cold storage warehouse firms say the tightness in warehouse space situation

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B. F. JOHNSTON, Gen. Mgr.

**UNION TERMINAL WAREHOUSE**

General offices, 737 Terminal St., Los Angeles 14

Free and U. S. Customs bonded storage. The largest, most complete and efficient Warehouse and Distribution Service in the West. Insurance Rate as low as 11.8 cents per \$100 per year. Daily motor truck service to all parts of the city and Los Angeles Harbor.

LOS ANGELES, CAL.

**METROPOLITAN WAREHOUSE CO.**

Merchandise Warehousing and Distribution

Reinforced Concrete Sprinklered Building—A.D.T. Alarm

Centrally Located in Metropolitan Area

Fire Insurance Rate 11.7 Cents

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LOS ANGELES 21

1305 First National Bank Bldg.  
CHICAGO



Offices for Rent

Telephone and Secretarial Service  
Basement Cooler Room

Contact in your community representative of the A.T. & S.F. Ry.

MEMBER  
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LOS ANGELES, CAL.

Member A.W.A., C.W.A., L.A.W.A.

**ONLY WESTLAND WAREHOUSES**

Offer You Neutral Switching To All Railroads in Pacific Southwest

Exclusive Los Angeles Junction Railway Service.

Located in Central Manufacturing District.

Low Insurance Rates.

Minimum Storage and Distribution Costs.

Write For Booklet

**WESTLAND WAREHOUSES, INC.**  
4814 Loma Vista Ave. Los Angeles



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**Overland Terminal Warehouse**

Served by

1807 East Olympic Blvd.

General Merchandise Storage

Sprinklered—A.D.T.

U. S. Customs Bonded Warehouse No. 11  
Cool Room Accommodations

For Complete Information Write Us Direct  
or Handle with Our Associates

**CROOKS TERMINAL WAREHOUSE, INC.**

CHICAGO  
485 W. Harrison St.

NEW YORK  
271 Madison Ave.

KANSAS CITY  
1104 Union Ave.

Or Nearest General Agency Union Pacific Railroad

LOS ANGELES, CAL.

Estab. 1918

**PACIFIC COMMERCIAL WAREHOUSE**

INCORPORATED  
MERCHANDISE STORAGE  
AND DISTRIBUTION

823 EAST THIRD STREET  
Los Angeles, California



**SPACE NOW AVAILABLE FOR STORAGE OF DEFENSE MATERIALS**

We specialize in package merchandise and solicit the handling of your volume of defense materials which are moving to the Pacific Coast. Advise your requirements and we will give you an outline of services and rates.

LOS ANGELES, CAL.

1817-1855 INDUSTRIAL STREET

**Star Truck & Warehouse Co.**

COMPLETE FACILITIES EFFICIENT SERVICE  
SPRINKLERED—A.D.T.  
Storage Distribution Drayage

Represented by Distribution Service

240,000 Square Feet

56 Motor Trucks

New York

Chicago

San Francisco

SACRAMENTO, CAL.

ARTHUR E. TRAVIS, Owner

**WESTERN VAN & STORAGE CO.**

1808-22nd St. Sacramento, Cal.

Merchandise and household goods Warehouse

Specializing in General Merchandise, Hops and Flour. Private Siding on S.P.R.R.—10-Car Capacity. Distribution of Merchandise and Household Goods Pool Cars.

SAN FRANCISCO, CALIF.

"Where the West begins and Distribution starts."



**GIBRALTAR WAREHOUSES**

201 California St., San Francisco 11

OPERATED IN CONJUNCTION WITH

**OVERLAND FREIGHT TRANSFER CO.**

AND

**TILDEN SALES BUILDING**

SAN FRANCISCO, CAL.

**HASLETT WAREHOUSE COMPANY**

240 Battery Street, San Francisco 11

Largest and most complete storage and trucking service on the Pacific Coast.

Operating in San Francisco, Oakland, Stockton and Sacramento

S. M. HASLETT - President

Member: American Warehousemen's Assn.  
American Chain of Warehouses, Inc.

## CALIFORNIA—COLORADO

### SAN FRANCISCO, CALIF.



FEETERS VAN & STORAGE SERVICE  
4050 24TH ST. • SAN FRANCISCO

**NORTH AMERICAN  
VAN LINES, INC.**  
Long Distance Moving

### SAN FRANCISCO, CAL.

Member:  
American Warehousemen's Association  
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**Complete  
Warehousing  
SERVICE**



General Merchandise  
United States Customs  
and  
Internal Revenue Bonded Storage.  
Draying and Pool Car Distribution.  
Office Accommodations  
and  
Telephone Service.

**SAN FRANCISCO WAREHOUSE COMPANY**  
625 Third Street Sutter 3461

### STOCKTON, CAL.

CHAS. C. WAGNER, Pres.

**PACIFIC STORAGE CO.**

517 N. Hunter St. Stockton, Cal.  
Merchandise—Household Goods—  
Drayage

Ship thru the PORT OF STOCKTON for economical  
distribution in Central California.  
Intercoastal Terminal Rates apply at Stockton.



### DENVER, COLO.



**THE BANKERS WAREHOUSE COMPANY**  
BONDED  
TELEPHONE MAIN 5259 • 2145 BLAKE STREET • DENVER, COLORADO

MERCHANDISE STORAGE — POOL CAR DISTRIBUTION  
A. D. T. Protection—Private siding C. B. & Q.—U. P. Also operate Warehouse  
at Brighton, Colo.

Represented By  
Associated Warehouses, Inc.—Chicago & New York City

### DENVER, COLO.

**SPACE AND OFFICES NOW AVAILABLE**

Sprinklered thruout. Free Switching  
Pool and stop over cars stored or distributed  
Centrally located

**KENNICOTT WAREHOUSES INC.**

1700-16 Street

Denver, Colo.

### DENVER, COLO.

**WEICKER** Complete Service

- ★ Mds. & Hhg. Goods Storage
- ★ Pool Car Distribution
- ★ Moving, Packing, Forwarding

We Operate the Weicker Transportation Co., a statewide, daily, motor freight service under regulation of the Public Utilities Com. Connection with Interstate Truck Lines to Principal Cities.

**BURGLAR PROOF SILVER VAULTS, CEDAR LINED RUG VAULT, FUMIGATING VAULT, PRIVATE LOCKERS.**

**The Weicker Transfer & Storage Co.**  
1700 Fifteenth, Denver, Colo.  
Member of N.F.W.A.—A.C.W.—A.W.A.

has eased a bit in the past few months. Some suggest that manpower is equally as important as storage space. A spokesman for one of the larger cold storage firms says his plant could handle twice as much volume if more men were available to keep it moving. He feels the different base wage scales in many other industries have tended to draw men from the storage warehouse business.

### New Process Used For Berry Freezing

The Borden Co. has built a modern plant to freeze berries in Fresno, Cal., and businessmen are predicting the new industry will absorb almost unlimited quantities of berries grown in the state. The company's first purchase for its new plant was 800,000 lb. of strawberries.

The fruit is processed with special equipment and used in sherbets, ice creams and ices. The company is packing the frozen berries in 30 lb. containers, which are then stored at zero temperature. Sugar to the amount of 20 per cent is added. The product is shipped to Borden's eastern plants in refrigerator cars held at zero temperature. (Gidlow)

**BACK THE ATTACK  
WITH  
WAR BONDS**

## GOVERNMENT COLD STORAGE PLANT MAY BE BUILT IN SAN FRANCISCO

SAN FRANCISCO—News that the Government is planning to construct a cold storage plant on the San Francisco waterfront is giving hope to business men here who are suffering from lack of cold storage facilities. Because so much of the existing cold storage facilities in the San Francisco Bay area, and Northern California generally, has been pre-empted for military and other Government use, commercial users are being deprived of cold storage facilities.

While the Army will use the proposed new plant, to be situated south of the Channel, commercial interests hope this would release existing space for their use.

The present serious shortage of cold storage space caused and is still causing grave inconvenience to fruit processors. This year pears and peaches are ready to harvest at the same time. The crop of pears is a bumper crop. Normally, canners and packers of fruits and vegetables store the crops in cold storage warehouses as harvested, until they can be taken care of by processing facilities. Spokesmen for these interests are clamoring that much of the pear crop in particular is spoiling because there is no cold storage space available. Great quantities of fruit have been dumped on the

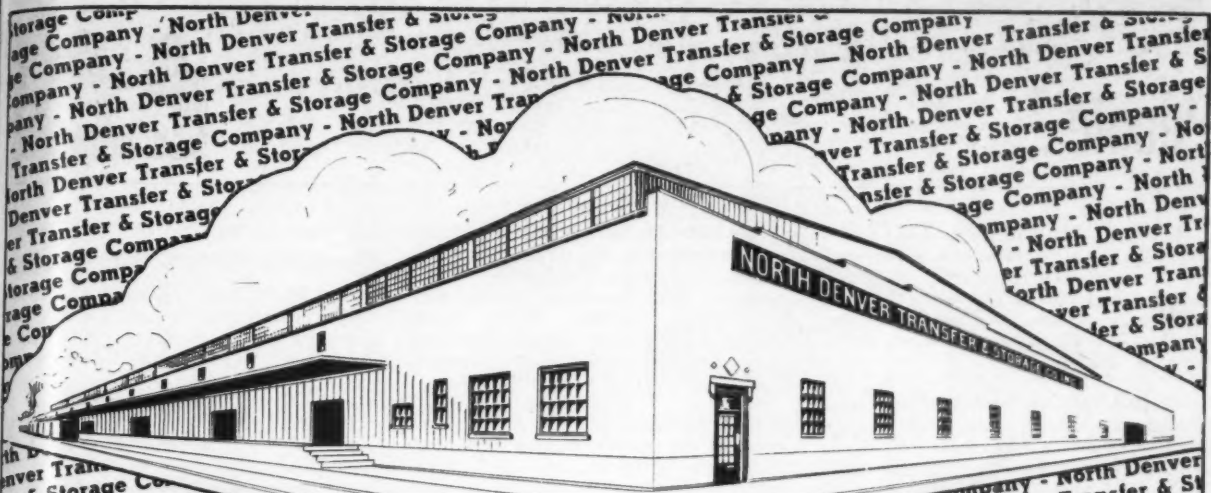
consumer markets at low prices and home canners are taking advantage of the "windfall." (Gidlow)

### California Expands Dry Ice Production

Commercial production of dry ice from carbon dioxide obtained from newly discovered carbon dioxide areas in California has been started by the Caldri Ice Corp. in the Hopland section of Mendocino County.

The Hopland district is one of 11 new carbon dioxide yielding areas in California the existence of which was disclosed in a recent survey made by the state mineralogist. The new gas areas all lie in Mendocino and Sonoma Counties, along the north-central coast of California.

The Caldri Ice Corp.'s production venture in Mendocino County brings to three the number of plants in California producing dry ice from carbon dioxide gas. Two plants at Niland in Imperial County for more than a decade have been engaged in year-round manufacture of dry ice from shallow carbon dioxide wells in the Salton Sea area.




## Don't Let The Word "NORTH" Mislead You!

... even though our name does indicate that we are located to one side of Denver, we are centrally located ... in fact, we have the most central and accessible location in Denver. We are conveniently located in the heart of the wholesale, retail, and jobbing districts, close to all railroad freight stations and motor freight terminals. Two large warehouses (one building occupies an entire one-half block) with ample facilities for loading and unloading of trucks. Floor load unlimited for heavy merchandise. For your transfer and storage needs and problems in Denver, why not let us solve them? Write ...

# NORTH DENVER TRANSFER AND STORAGE COMPANY

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11 WEST 42ND ST. PENN. 6-0968 1525 NEWBERRY AVE., MON. 5531



# People . . .



Harvey C. Fruehauf, president, Fruehauf Trailer Co., Detroit, has accepted the designation of Honorary Vice Chairman of National Bible Week for the Motor Transport Industry. National Bible Week will be observed from Oct. 11 to 17 inclusive.

C. Roy Manska has been appointed vice-president and general traffic manager, Western Carloading Co. R. Mason has been named assistant general traffic manager, Thomas A. O'Neill vice-president in charge of sales and service, and Max Turner manager at Los Angeles. (Herr)

W. W. Berreman has been appointed general manager of Interstate Motor Lines, Salt Lake City, Utah. (Herr.)

Ed Neylon, formerly associated with the St. Louis Refrigerating & Cold Storage Co., and now attached to the U. S. Quartermaster Corps, has been promoted to the rank of captain.

The Alumni Assn. of the Academy of

Advanced Traffic has elected the following new officers: President, John W. Peterson, Air Reduction Sales Co.; vice-president, Sam Bartoletta, traffic manager, North Braddock Motor Lines; Adele Kalligan, Quinn and Boden, secretary, and T. H. Lorenz, traffic manager, G. Washington Coffee Co., treasurer.

A. R. Current, formerly Chief, Storage and Terminals Section, Office of Price Administration, has been transferred to the Food Distribution Administration as Chief of the Storage Section, Transportation and Warehousing Branch, the position formerly held by H. K. Osgood, who is now with the ODT's storage Division.

Fred W. Berry, manager, Baltimore and Ohio Warehouse, Cincinnati, O., retired Aug. 13 after 44 years of service. He was honored by a surprise testimonial dinner tendered by his associates. Out-of-town guests included: Wm. J. O'Neil, Columbus Terminal Warehouse; A. W. McNeal, Columbus Storage Co.; Chas. Cohagen, Merchandise Warehouse Co.,

and Edward Wenchet, Union Storage Co.

Earl H. Ottman, National Warehouse Corp., Milwaukee, was elected the new president of the Wisconsin Warehousemen's Assn., to succeed N. J. Meyer, who had served two years.

Raymond De Groote, manager for years of Luckenbach Steamship Co.'s Chicago agency, was commissioned a lieutenant (S.G.) in the Navy early in August and assigned to duty at a west coast port. During his absence his wife, Mrs. Kay De Groote, will have charge of Luckenbach's Chicago office. (Slawson)

Walter A. Nagel, formerly department supervisor of the New York district office of Pan American World Airways, has been named assistant to Arthur C. Doyle, U. S. traffic manager.

Eugene Overton, Los Angeles attorney, who in mid-July was elected president of the Los Angeles Board of

## PUEBLO, COLO.

**BURCH WAREHOUSE AND TRANSFER CO. INC.**  
General Office and Warehouse  
200 SO. SANTA FE AVENUE  
Modern Sprinklered Fireproof Building  
Freight Forwarding and Distribution  
Household and Merchandise Storage  
**PACKING AND SHIPPING**  
Member of May. W.A.—A.W.A.—Colo. W.A.

## PUEBLO, COLO.

**WEICKER TRANSFER & STORAGE CO.**  
128-130 SOUTH MAIN  
• Modern Sprinklered Building • Pool Car Distribution  
• Household and Merchandise Facilities • Freight Forwarding and Distribution  
★AGENT ALLIED VAN LINES—

## BRIDGEPORT, CONN.

**WEST END MOVING & STORAGE CO.**  
764 HOWARD AVE. • BRIDGEPORT  
**NORTH AMERICAN VAN LINES, INC.**  
Long Distance Moving

## HARTFORD, CONN.

**HARTFORD DESPATCH and WAREHOUSE CO., Inc.**  
410 CAPITOL AVENUE, HARTFORD, CONN.  
U. S. Bonded Warehouse • Pool Car Distribution • Household and Merchandise Facilities • Private Siding • Our fleet covers Connecticut and Massachusetts daily. Warehouse at Bridgeport, Conn., and Springfield, Mass.  
Members: NEWA—AWA—ACW—AVL Agents

## BRIDGEPORT, CONN.

**The Bridgeport Storage Warehouse Co.**  
General Offices 10 Whiting St.  
General Merchandise Storage and Distribution  
Total Storage Area 67,000 Sq. Ft.  
Household Goods, Moving, Packing and Shipping  
N. Y., N. H. and H. R.R. Siding

## HARTFORD, CONN.

**SILLENCE Warehouse Co., Inc.**  
HOUSEHOLD GOODS EXCLUSIVELY  
Fireproof Warehouses  
N.W.A. C.W.A. U.M.T.A. C.O.F.

## BRIDGEPORT, CONN.

**HARTFORD DESPATCH and WAREHOUSE CO., Inc.**  
131 SEAVIEW AVENUE, BRIDGEPORT, CONN.  
U. S. Bonded Warehouse • Pool Car Distribution • Household and Merchandise Facilities • Private Siding • Our fleet covers Connecticut and Massachusetts daily. Warehouse at Hartford, Conn., and Springfield, Mass.  
Members: NEWA—AWA—ACW—AVL Agents

## NEW HAVEN, CONN.

**DAVIS STORAGE COMPANY**  
M. E. KIELY, Pres.  
335 East St., New Haven, Conn.  
Modern Fireproof Merchandise Warehouse  
Private seven-car Siding, adjacent to Steamship and R. R. Terminals. Pool and stop over cars distributed.  
Merchandise Storage.  
Motor Truck Service to all towns in Connecticut.  
Low Insurance Rate. Prompt, Efficient Service.  
Member of Connecticut Warehousemen's Assoc.

NEW HAVEN, CONN.

**NEW HAVEN TERMINAL, INC.**

30 Waterfront St., New Haven, Connecticut

Truck, Rail and Deep Water Terminal Warehouse—45 car siding—open storage.

Pier 500 ft. long—2 Berths—28 ft. M.L.W.

ADT Watchman and Fire Alarm Service

TORRINGTON, CONN.

Established 1860



**The E. J. Kelley Co. Storage Warehouses**

Main Office, Torrington, Conn.—Telephone 9243

One of New England's Largest Transportation Companies

Household Goods Packed, Stored, Shipped.

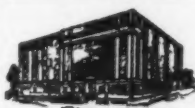
Merchandise Storage and Distribution.

Pool Cars Distributed in All Parts of Connecticut.

Branch Offices in Bridgeport, Hartford, New Haven & Waterbury, Conn.; Springfield & Worcester, Mass.

WASHINGTON, D. C.

Telephone ADams 5800



**FEDERAL STORAGE COMPANY**

1701 FLORIDA AVENUE, WASHINGTON 9

E. K. MORRIS, President

(See Page Advertisement Directory Issue)

Member—NFWA, AVL, WFA, CS&TA, DCTA

WASHINGTON, D. C.

Maurice Kressin, Mgr.

**Manhattan Storage & Transfer Co.**

639 New York Ave., N.W., Washington 1, D. C.

Household Goods storage, packing, shipping. Pool Car Distribution Merchandise.

Lift vans local delivery.

Member Ind. Movers & Warehousemen's Assoc.

WASHINGTON, D. C.

**Security Storage Company**

OF WASHINGTON

Capital, Surplus and Reserves over \$1,200,000

Security (steel) lift vans for overseas shipments. Door to door rates quoted. All risk insurance if desired.

Members, NFWA, AVL, Canadign, British, French & Other Aves.

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Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.  
Agent ALLIED VAN LINES, INC.

**STORAGE and DISTRIBUTION**



Established 1860

Merchandise, automobiles, furniture—23 buildings—ADT supervised watchman service—Low insurance rates—15 car siding—Central location—Daily truck delivery service covering Connecticut and southern Massachusetts—Bonded with U.S. Customs.



**THE SMEDLEY CO.**

165 Brewery St., New Haven, Conn.

Members: AWA, NFWA, CWA, New Haven, Chamber of Commerce, Hauling Agent Allied Van Lines, Inc.

NEW HAVEN, CONN.



PAUL A. DAHLGARD, Owner

**West Haven Trucking Company**

Storage Warehouses

Offices, 435 Congress Ave., New Haven 11

Moving and Storage of Household Goods Exclusively

Member Connecticut Warehousemen's Association

Harbor Commissioners, has been chosen president of the Pacific Coast Assn. of Port Authorities. (Herr)

T. I. Thomas has been elected treasurer and general manager Winchester Cold Storage Co., succeeding the late William Beverley. He had been assistant manager for several years. The storage, reputedly one of the largest in the world, has a capacity of about 1,500,000 bu. of apples. (Toles)

Ray G. Lochiel, treasurer and comptroller, Pennsylvania-Central Airlines, has been elected president of the Washington Chapter, National Office Management Assn.

Daniel B. Burnett Jr. has been made assistant plant manager of H. J. Heinz Co., War Production Division, Pittsburgh, Pa., which is turning out a large volume of airplane plywood parts. Before joining the Heinz organization, he was connected with the Ryan Aeronautical Corp. for 20 years.

J. V. Sheehan formerly with Lockheed Aircraft Corp., Burbank, Cal., is now with the Walt Disney studios.

Lowell E. White, formerly test pilot for the Wright Aeronautical Corp., has joined the research engineering staff of the C-O-Two Fire Equipment Co., Newark, N. J.

Frank F. Law, president, John Wyeth & Brother, Inc., Philadelphia, manufacturers of pharmaceuticals for 80 years, has announced the appointment of William A. Angus as traffic manager of the company.

American Airlines, Inc. has announced the appointment of George T. Rutledge as supervisor of planning, representing the station operations department on the company's Economic Planning Board.

George W. Healey has become general manager All American Van and Storage Co., Los Angeles, A. L. Eytchison, owner of the company, has announced. Mr. Healey was formerly vice-president of North American Van Lines, Inc., Cleveland, O., and served on the board of Directors and as Treasurer of the Household Goods Carriers Bureau for several years.

Lowell McAdam, Orth Van & Storage Co., Pasadena, Cal., was elected president of the United Van & Storage Assn. at the recent annual convention in Los Angeles. Edward Flanders, Los Angeles Warehouse Co. was elected secretary, and Ray Conway, Spriggs Van & Storage Co., Hollywood, treasurer. (Herr)

The Port of Philadelphia Maritime Society recently elected the following new officers: president, Robert V. Hudson, of J. E. Brenneman Co.; vice-presi-

dent, Lawrence T. Howell, of Terminal Warehouse Co.; secretary, J. J. Higgins, Philadelphia and Norfolk S. S. Co.; treasurer, John S. Hunter, Atlantic Refining Co.

J. B. Millard, formerly with the International Freighting Corp., Philadelphia, is now associated with the Lipschutz Fast Freight Co. (Dash)

Victor H. Jenkins, traffic department of the Sun Oil Co., has been elected president of the Philadelphia Junior Chamber of Commerce. (Dash)

N. B. McLean has been appointed manager of the marine division, Bendix Aviation Corp., Philadelphia. (Dash)

Walter R. Guild has been selected by the Board of Directors of the Massachusetts Warehousemen's Assn. as managing director. He takes the place of Lyman W. Whitcomb, who resigned. In the interval between Mr. Whitcomb's resignation and Mr. Guild's election, John Tolman, of the Wiggin Terminals, Inc., carried on the work.

Mr. Guild, who has a long background of effective trade association work, will also serve as managing director of the New England Manufacturing Confectioners Assn. with whom the MWA has shared facilities in Boston for a number of years. He has been executive secretary of The New England Paper Mer-

chants Assn., since Jan., 1941, and manager of the Cigarette Merchandisers Assn. of Mass. since 1936 and will continue to carry on his work for these associations.

Mr. Guild, who is 47 years of age, received his education in Providence, R. I. schools and at the University of Illinois (Business Administration). He is married, resides in Newton Center, Mass., and has two sons, one of whom is in the Army. (Wellington)

## OBITUARY

Richard C. du Pont, special assistant to Gen. H. H. Arnold, chief, United States Air Forces, president of All-American Aviation, and one of the country's experts in glider operations was killed Sept. 11 in a glider crash at March Field, Cal. Mr. du Pont had only returned a few days previously from a special mission to Sicily. Interested in powered and motorless aviation since his early 'teens, Mr. du Pont was the holder of many American glider records and was a former president of the Soaring Society of America. In the powered-plane field he was a pioneer in the so-called pick-up mail and freight service. All-American Aviation, which he headed, began service for the Post Office Department in May, 1939, in the transport of air mail and air express to 115 cities and towns in six Eastern States where no airport facilities existed. Planes of the du Pont company now swoop in, drop their cargo and snatch new cargo suspended from simple uprights without

alighting. Early this year, the company is said to have completed 2,500,000 miles of flying by the pick-up system.

Halsey E. Poronto, 71, president United States Cold Storage Corp., Chicago, died Aug. 22. Born at Rutland, Vt., Dec. 19, 1872, he went to Chicago in the late nineties and became prominent in railroad and industrial activities. He was a former vice president of the Union Stockyards and Transit Co., and a trustee of the Central Manufacturing District. (Slawson)

Frederick H. Y. Pouch, 77, former president American Docks Co., and regarded as an expert on the storage and merchandising facilities of the Port of New York, died Aug. 22 at his home in Stamford, Conn. He was treasurer of the Riker-Hegeman Drug Co. for many years before it was absorbed by the United Drug Co.

Max Thaten, 66, president Thaten Terminals, Inc., St. George, Staten Island, N. Y., died Aug. 26, on his 66th birthday. For many years Mr. Thaten was general superintendent for the American Dock Terminal.

William Kirby Etter, 69, of Chicago, vice-president in charge of operations of the Santa Fe Railway System, died of a heart attack at the California Club, Los Angeles, Aug. 16. Mr. Etter served with the railroad for more than 52 years. (Herr)

Henry Stauffer King, 93, founder and former president of the Security, Stor-

age and Trust Co., Baltimore, died Sept. 6. He organized the Security, Storage and Trust Co., in 1894, later becoming its president and retaining that position until his retirement from business in 1927. (Ignace)

John W. Woodfill, 57, dean of bulk freight vessel agents at the head of the lakes and for 23 years transportation representative of M. A. Hanna Co., Cleveland ore, coal, and shipping firm, died Aug. 31. He was one of the best known men in Duluth, Minn. and widely respected among Great Lakes shippers.

Frank A. Doyle, head of the Philadelphia Machinery and Equipment Co., and secretary of the Southwark Corp. before its merger with the Baldwin Locomotive Works, died Aug. 10. (Dash)

## Deny Discontinuance Of Commerce Offices

Rumors that the Los Angeles and San Francisco offices of the Bureau of Foreign and Domestic Commerce might be discontinued, and the work taken over by the OEW, have been denied. Reports of discontinuance of these offices aroused storms of protest in California, and demands that the two heads of the offices be retained. These are: John L. Judge, district manager in San Francisco; and H. E. Waterbury, district manager, Los Angeles. Shippers and foreign traders said these men had done much to aid foreign and domestic trade here.

WASHINGTON, D. C.

# IN WASHINGTON..

*There's always*  
**ROOM AT SMITH'S**  
**15 WAREHOUSES**

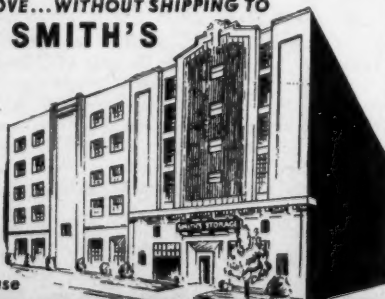
"Smith's looked ahead. They foresaw the storage needs of Washington's War-time population. They added one warehouse after another and today Smith's have fifteen large storage warehouses."

DON'T MAKE A MOVE...WITHOUT SHIPPING TO

Exclusive Agents  
**Aero Mayflower**  
Transit Co.



Our Main Warehouse



# SMITH'S

TRANSFER & STORAGE CO.  
1313 YOU ST. N.W. NO. 3343

WASHINGTON, D. C.

## GENERAL MERCHANDISE STORAGE

Pool Car Distribution

Direct Switching Connections Into Warehouse  
Pennsylvania Railroad

## TERMINAL REFRIGERATING & WAREHOUSING CORPORATION

4th and D Streets, Southwest

Member of A. C. W.

WASHINGTON, D. C.

W. E. EDGAR, Supt.

## THE TERMINAL STORAGE COMPANY OF WASHINGTON

First, K and L Streets, N. E.

Large buildings of modern construction, total floor area 204,000 square feet, of which 109,000 square feet is of fireproof construction.

Storage of general merchandise

CONSIGN SHIPMENTS VIA B. & O. R. R.

Heated rooms for protection against freezing.  
Member of American Warehousemen's Association

WASHINGTON, D. C.

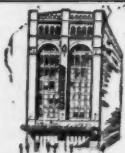
Established 1901

## UNITED ★ STATES STORAGE COMPANY

418 10th St., N.W., Washington 4, D. C.

We Reciprocate Shipments

(See Advertisement in Directory page, page 118)  
Member of N. F. W. A.—W. W. A.





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ESTABLISHED 1901

THE SOUTH'S LARGEST FIREPROOF WAREHOUSE  
EXCLUSIVELY FOR HOUSEHOLD GOODS & OFFICE EQUIPMENT**DELCHER BROS. STORAGE CO.**

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Local & Long Distance Moving  
Rug Cleaning Cold Storage For Furs

## JACKSONVILLE, FLA.

FLORIDA'S LARGEST WAREHOUSE

**Union Terminal Warehouse Company**

700 East Union Street

Merchandise Storage—Custom Bonded—Pool Car Distribution  
Reconsigning—Trucking Service—Trackage 52 Cars  
Reinforced Concrete—Sprinkler System—A.D.T. Service  
Insurance Rate 12 CentsRental Compartments—Sub-Postoffice.  
Members A.W.A.—A.C.-of-W.—J.W.A.

## MIAMI, FLA.

**INTERNATIONAL BONDED WAREHOUSE CORP.**U. S. CUSTOMS BONDED  
Specializing in Imported & Export Storage—Negotiable Warehouse Receipts**MERCHANDISE STORAGE**\$50,000.00 in BONDS & WAREHOUSEMEN'S LIABILITY INSURANCE  
\$100,000.00 WAR DAMAGE INSURANCE

219-251 S. W. First Court Tele. Miami 2-1208

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MEMBER



"Your Tampa Branch House"

**CALDWELL BONDED WAREHOUSES**MERCHANDISE—HOUSEHOLD GOODS  
Member American Warehousemen's Ass'n.

## TAMPA, FLA.

**LEE TERMINAL**1139 Ellamae Ave.  
TAMPAMerchandise Storage  
Pool Car Distribution  
Commercial Cartage  
Water & Rail connections  
Low Insurance Rate  
Household Goods Storage  
Moving—Packing—Shipping  
Agents Allied Van Lines  
National Movers

Members: AWA—NFWA

## TAMPA, FLA.

**TAMPA COLD STORAGE & WAREHOUSE CORPORATION**

COR. MARION &amp; CASS STS., TAMPA 1

Loans on Stored Commodities. Sales Representation. Privately Bonded.  
Pool Cars Handled.Located in heart of Tampa. General merchandise—Cooler and sharp  
freezer cold storage. Efficient distribution over entire state. Field  
Warehousing.

380,000 Sq. Ft. of Space

## TAMPA, FLA.

WILLIAM J. EVE, Manager

**WAREHOUSE, INC.**

BONDED

CARLOAD AND COMMERCIAL STORAGE  
POOLED CAR DISTRIBUTION

Morgan and Water Streets, Tampa, Florida

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## Should Motor Carriers Fly Air Cargo?

(Continued from page 20)

development of the country as well as by the increased pick-up and delivery business in a coordinated motor and airline service. Much of the air cargo business will be developed because the airlines will give a service impossible either for the railroads or truck lines to render.

Many marketing and merchandising methods will be changed by the possibilities of speedier transportation by air. The enormous local and short-haul tonnage will be the motor carriers' business. The airlines cannot compete with trucks for it. If the motor carriers handle this traffic properly they will have all they can attend to.

It would, moreover, not be for the best interest of the public for American transportation to move too far toward integration of the different competing agencies into huge, monopolistic combines in which the surface interests would inevitably play a dominating part, particularly if the railroads with their greater capitalization were brought into the picture. Already powerful and well-financed groups are strongly advocating such combines.

Suppose such a system had been in effect in the years preceding Pearl Harbor. Could we then have had the extensive air transport industry which has

been of such critical importance to our power in the world conflict? Very surely we would not! We would not have had it because where an older form of transportation tries to dominate another, newer form of transportation, the older tends not to develop the newer, but to throttle it, control it, remove it as a source of competition to the facilities in which it has already invested its larger capital and has its greater interest.

There are also certain economic reasons why air cargo transportation is definitely the domain of the present airlines, or those which will be authorized to operate in the future. It is more economical to operate cargo flights under the same organization handling passengers and mail. Overhead costs of maintenance and terminal facilities can be pared with passenger and mail operation, and for some of the smaller airlines hampered in their operations by too little passenger traffic, the per-mile cost of operation can be reduced considerably by the addition of air cargo traffic.

If air cargo is handled by a purely air cargo operator, one not carrying mail or passengers such as most of the motor carriers propose to be, new cargo routes would be delayed in starting and in their development. The development costs for air cargo transportation alone would be too large. To expand all forms of air transportation into new territories, 'as quickly as they should be expanded after the close of the war, it will be necessary

that cargo, mail and passenger transportation be performed by the same air carriers.

In some localities air cargo shipments would not justify more than one all-air-cargo flight per day. If a company not now transporting passengers and mail were offering the air cargo service, all shipments arriving during the day would have to remain at the airport until the arrival of the night cargo flight. If the service were offered by an airline offering full service, shipments becoming available during the day could be placed on passenger flights whenever space was available, thus providing better service.

To properly promote the use of air cargo the agency flying it must be owned and controlled by persons interested in seeing it develop to its maximum extent. The leadership must be of the type which is keenly alive to the potentialities of air transportation and must believe in the economics present in the utilization of air by shippers. To often other carriers are imbued with the problems and methods of a ground transportation system and, as such, are unfit to promote air cargo. The leadership must be air-minded in every sense of the word. On the other hand, there are motor carrier operators who, undoubtedly, could do a better selling job for air cargo than is being done today, and the sooner the airlines realize the possibilities of coordination with such carriers the better it will be for them and also for the shipping public.

## Unit Load Transfer

(Continued from page 24)

or unloading and the ratchet on the rear sheet allows for load variations and locks the load in position during transit.

It has been found in some instances in actual practice that by carefully planned package arrangement on pallets, similar volume could be accommodated per trailer body to that realized by manual storage. This, however, will not always apply, and space loss of up to 10 per cent may be occasioned on certain packages, but in such cases this can be compensated for in 1½ to 2 ft. added length in trailer body or other change in design.

Trailer bodies thus built can be loaded and unloaded from the side by fork trucks working at ground level which has an advantage when one of the locations has no loading platform. It can also be loaded from a well recessed in a regular loading platform. The loading or unloading time with two tractors can be performed in six minutes as compared with 1½ to 3 hours when this operation is performed manually. This reduced loading time also reduces the investment required in trailer equipment by increasing their effectiveness as much as 25 per cent to 75 per cent.

## EASTMAN URGES DRASTIC ACTION TO END R.R. MANPOWER CRISIS

The United States is headed for a crisis in railroad manpower unless drastic remedies are undertaken immediately by management and labor, with the assistance of the Government, Joseph B. Eastman, director of the Office of Defense Transportation, has warned.

The ODT Director sent a 13-point program to the Assn. of American Railroads, the American Short Line Railroad Assn., the Railway Labor Executives' Assn., the executive of each individual operating railroad, the heads of each individual railroad labor organization, and to each agency of the Government whose help is needed to carry out the program.

"These opportunities for relief must be pursued at once," Mr. Eastman said, "no matter how foreign they may be to past customs and practices."

The first point of the program is that each individual railroad immediately file with the Bureau of Selective Service the replacement schedules for which provision has been made but which most of the railroads have thus far failed to file.

These schedules, Mr. Eastman pointed out, in effect constitute agreements between the respective railroads and Selec-

tive Service as to which and how many employees may be inducted and the dates after which they will be available for call. He promised that the ODT would request Selective Service to grant a 60-day moratorium on inductions to those railroads which signify their intention to prepare and file such a schedule.

Other points in the program provide for organized recruiting drives to get new railroad workers with the help of Government agencies; regional pools of trained personnel to serve as "flying squadrons," ready to move into trouble areas; the further use of women, along lines already successfully followed by the Pennsylvania and Southern Pacific railroads; various improvements in employment conditions; the use of Mexican nationals and prisoners-of-war for certain classes of work; and closer cooperation between managements and labor through regularly constituted committees. Procedure is outlined through which railroad companies can seek relief from full-crew laws and train and engine mileage limitations by possible Government action, after labor has had opportunity to present its views.



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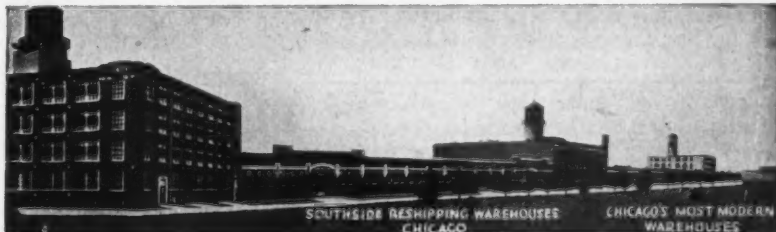
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Suburbs for 34 Years



## Ground Handling For Air Cargo . . .

(Continued from page 27)

of having trucks properly spotted to pick  
up the loads for shipment. Yet to wait  
for an accumulation of shipments to  
make a full truck load would eat up the  
time advantage. Air-borne cargo can-  
not afford to remain on terminal plat-  
forms.

The only logical answer then is for the  
airlines to make use of regular estab-  
lished truck facilities which are con-  
stantly on the move in the natural areas  
of distribution. Because these trucks  
carry other cargo, they can afford to  
pick up the air express consignments and

drop them off at their destinations with-  
out going out of the way to any extent.  
And if it is necessary to cross state  
boundaries, the established truck op-  
erators are prepared to meet the Inter-  
state Commerce Commission's regula-  
tions.

Since trucks offer the most natural and  
efficient means for assembling and com-  
pleting air cargo shipments, operators in  
the trucking field will do well to cooperate  
with the airlines rather than fight them.  
Air service is destined to aid American  
business by handling transcontinental  
shipments of adaptable goods and by  
rapid movement of such goods to and  
from foreign countries. While the airlines  
may take away some business from high-  
way carriers, the airlines will develop

new business on which truck operators  
should be able to realize handsomely.

As previously indicated, the choice of  
a carrier, whether air, rail, highway, or  
water, should be based on sound reason-  
ing after full consideration of all eco-  
nomic factors. Instead of expending en-  
ergy on the attempted strangulation of  
competing carriers, it would be far bet-  
ter to expend that energy on the im-  
provement of facilities and services.  
Truck operators, on their part, can apply  
the lessons of wartime transportation by  
using properly designed equipment to  
meet exacting needs, by instituting an  
efficient maintenance program, by im-  
proving loading facilities and methods,  
by closer scheduling of operations, and  
similar steps. This done, they may well  
expect a favorable share of the business  
while maintaining a natural service re-  
lationship with air cargo.

Air cargo, on its part, has a logical  
place in the speeding up of post-war  
distribution. With the tremendous built-  
up needs of the people due to wartime  
restrictions, and the assurance of healthy

**J**UST as the canals protested and fought the expansion of the railroads, and the railroads  
fought the development of motor trucks, so now we find truck operators, in some instances,  
sounding a warning against the evolution of air cargo. Thus history repeats. The antidote  
is merely a liberal portion of straight thinking. . .

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**I**NSTEAD of expending energy on the attempted strangulation of competing carriers it would be far better to expend that energy on the improvement of facilities and services . . . All forms of transportation should cooperate. The general goal should be more efficient and economic distribution . . . It is a goal worthy of our best efforts . . .

buying power, America is destined to experience an era of prosperity in which all forms of transportation will receive calls in proportion to the services they are prepared to render.

In this new and greater picture, all forms of transportation should cooperate. The general goal should be more efficient and economic distribution. We should think in terms of mass transportation, employing every available method to the best advantage. If we can reduce distribution costs, which have surpassed production costs on a 55 to 45 basis, we

will contribute to the general business volume, and common carriers will all have a share in the increased movement of goods. This is a goal worthy of our best efforts.

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Silent Hoist also flies the Maritime 'Ships for Victory' Flag. The firm was established in 1918 and was honored by the award of the Army-Navy 'E' with Star on its 25th anniversary.

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Maloney Trucking & Storage, Inc., New Orleans, La., has become a member of Allied Distribution, Inc. The New Orleans firm operates complete warehousing facilities, including distribution, weighing, forwarding, fumigation, storage, cartage, field warehousing, etc., and has office space and display rooms available. Paul Maloney, Jr., is president and operating executive; Robert L. Hardie, vice-president, and S. L. McGinn, secretary and treasurer.

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## D and W, October, 1943—83

highway barriers; or if organizations which are interested in highway transportation pull down the flag, as it were; or if officials of state and federal governments think the victory already has been won; a sad awakening to them all may let them know that highway barriers in aggravated forms still continue.

In order to prevent such an unfortunate ending to a concerted effort of more than 10 years to rid the country of highway barriers, it will be necessary for all the organizations, agencies and interests which have worked harmoniously together during recent years to realize that in highway transportation, as in governmental affairs, "eternal vigilance is the price of liberty."

Go to sleep on this barrier proposition and the freedom of using the highways of the country in trans-state and transcontinental traffic will either be gradually or immediately wrapped up again in official red tape, rules, regulations and costs. By keeping awake on the proposition and eternally vigilant,

### Highway Deterioration . . .

"The daily deterioration of our highways from normal use and natural causes, because of failure or inability to make repairs when needed," according to John S. Worley, professor, Transportation Engineering, University of Michigan, "is becoming a serious problem, because manpower and materials are needed more elsewhere for winning the war."

"While it is poor economy to neglect to repair the damage from frost-boils, cracks, shoulder washouts, etc., such as were caused during the hard winter of 1942-43, still the test of a nation's ability to win a war is not its money supply as much as its manpower and supply materials. We will win this war and we will again put our highways in shape. The cost of repairing them is directly chargeable to the war effort just as much so as the cost of planes, ships and tanks."

the organizations and agencies which have been aroused during a decade of

the iniquities which characterized the entire port of entry set-up will be able to move right along and retain not only the victories gained for the duration but to make them permanent and to add others which have not yet been accomplished.

No state is so completely free of one or another highway barrier that it can be stated no change needs to be made in its statutes and no modifications in its highway regulations.

Measuring the present situation in regard to highway barriers with that which existed 10 or 12 years ago, when Kansas enacted and put into effect the first port of entry statute, the situation at the moment appears to be almost ideal. Measuring this situation, however, with the constitutional yardstick stated in the federal constitution of 1787, that Congress has control of interstate commerce whenever that august body chooses to exercise such control, it is seen that state after state—most states—in too many ways have enacted and continue in various degrees to enforce

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Sprinklered Warehouses

Office Rooms

General Merchandise and Cold Storage

Down Town Location with RR tracks in building.

### Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

Riley 5513

## A Complete Service

General Merchandise—Cold Storage  
Pool Car Distribution

Modern Motor Trucking Service  
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All Merchandise On Check Out Cars  
Placed On Platform Ready For Delivery

Consign Shipments Via N.Y.C.  
Store Door Delivery and Pick-up for above RR.



## STROHM WAREHOUSE AND CARTAGE COMPANY

230 WEST McCARTY ST., INDIANAPOLIS, IND.



### Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

## THE TRIPP WAREHOUSE COMPANY

1001 E. New York Street, Indianapolis 7, Ind.

Complete facilities for the storage and distribution of  
**MERCHANDISE**

PRIVATE SIDING—BIG FOUR—CONNECTING WITH ALL  
RAILROADS—NO SWITCHING EXPENSE. TRUCK  
SERVICE.

Member A. W. A.—Ind. W. A.  
Write for complete description of services  
to meet your individual requirements.

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Local and Long Distance  
**MOVING—STORAGE—CRATING**

Consignment shipments via C&O or Big 4. Distribution of  
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Agent for  
Auto-Mayflower Transit Co.—National Furniture Movers

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### Ullery Cold Storage & Warehouse Co.

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Merchandise and Cold Storage  
Modern Cold Storage Locker Plant, 1400 Capacity  
Private Siding on Grand Trunk Western Railroad  
Pool Car Distribution, Trucking Service  
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A.D.T. Service

## Distributors Terminal Corp.

Merchandise Storage and Distribution a Specialty  
Pool Cars Solicited

Motor Trucks for Store Door Delivery. Our clients do the selling—We  
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License No. 12-4.

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SINCE 1907

General Merchandise Warehousing and Distribution. Cold Storage.

Modern Brick Warehouse, Sprinklered 80,000 Square Feet. Siding on C. M. St. P. &amp; P. Rd. Free Switching from Other Roads. Motor Freight Terminal. Agent Greyvan Lines.



## CEDAR RAPIDS, IOWA

Cedar Rapids  
TRANSFER & STORAGE CO.FIREPROOF WAREHOUSE  
AND TRUCK TERMINAL ON TRACKAGE  
All Modern Facilities For Efficient Warehousing  
and Distribution of Merchandise  
DAILY SERVICE IN EVERY DIRECTION

## DAVENPORT, IOWA

## EWERT &amp; RICHTER EXPRESS &amp; STORAGE CO.

At Davenport, Iowa, Rock Island and Moline, Ill.  
Fireproof Warehouse on trackage. Phone Dial 3-3653.  
Branch office and Warehouse service—Mississippi Valley reaching 20 Million Consumers.  
Pool- and Stop-over Distribution.  
Truck Terminal & Motor Truck Service.  
Members: AWA NFWA IAWA.  
Associated Warehouses, Inc.  
Agents, ALLIED VAN LINES.

## MASON CITY, IOWA

A. W. A.—May. W. A.

MASON CITY WAREHOUSE  
CORPORATIONMerchandise Storage,  
Household Goods Storage,  
Pool Car Distribution,  
Local and Long Distance  
Moving.Packing & Crating,  
Local Transfer,  
Private Sidings,  
Motor Freight Terminal.

## DAVENPORT, IOWA

MEMBER AMERICAN CHAIN OF WAREHOUSES

Fireproof  
Warehouse  
on  
C. R. I. & P. Ry. **MERCHANTS**  
TRANSFER & STORAGE CO.

ESTABLISHED 1903

Merchandise Storage, Furniture Storage &  
Pool Car DistributionMEMBERS: A.W.A.—N.F.W.A.—I.A.W.A.—  
AGENTS—ALLIED VAN LINES, INC.428  
Western  
Ave.

## DES MOINES, IOWA

## BLUE LINE STORAGE CO.

200-226 - Elm - Des Moines, Ia.  
Merchandise and Household Goods  
StoragePrivate Siding — Free switch from  
any R.R. entering Des Moines

Members: A.W.A.—N.F.W.A.—I.A.W.A.—M.O.W.A.



## DES MOINES, IOWA

Member American Chain of Warehouses

Fire  
Proof  
Ware-  
house **MERCHANTS**  
TRANSFER & STORAGE CO.

TRY OUR SUPERIOR SERVICE

40 years' warehousing nationally known accounts  
gives you Guaranteed Service  
Daily reports of shipments and attention to  
every detail.9th  
&  
Mulberry

## DES MOINES, IOWA

ONE HUNDRED FIFTH AVE.

MERCHANDISE **Reppert** FURNITURE  
TRANSFER & STORAGE CO. STORAGEPool Car Distribution  
Special Heavy Equipment for Machinery, Boilers, Presses.  
Siding C. R. I. & P. Ry. Free Switching from any R. R.  
Operators—Wholesale Merchants Delivery—Retail Merchants Delivery  
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1880—83 Years' Continuous, Efficient Service—1943

**WHITE LINE TRANSFER & STORAGE CO.**  
Merchandise & Household Goods Storage  
—Fireproof Warehouse—Lowest Insurance Rate. Pool Car Distribution. Private Siding. Free  
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Member of A.W.A.—May. W.A.—I.A.W.A.Represented by  
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11 WEST 42ND ST. PHEN. 4-0066 1513 NEWBERRY AVE. MON. 5531

Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.  
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222,000 sq. ft. of floor space in buildings of brick-concrete-steel construction. Chicago-Great Western R. R. siding with 10 car capacity. Free switching with Federal Barge Lines. Low insurance rates. Complete-Motor-Freight-Facilities. Pool car distribution—all kinds. Merchandise & Household Goods Storage, industrial and office space for rent.

Write today

### DUBUQUE STORAGE & TRANSFER CO.

3000 JACKSON ST. DUBUQUE, IOWA

Member of Iowa Warehouse Ass'n.  
Chicago Representative: National Warehousing Service, 519 W. Roosevelt Road.  
Tel. Canal 5742

## WATERLOO, IOWA

## IOWA WAREHOUSE CO.

Fireproof Warehouse Motor Truck Service  
Distributing and Warehousing All Classes  
of Merchandise and Household Goods

## KANSAS CITY, KANSAS

INTER-STATE  
TRANSFER AND STORAGE COMPANYFIREPROOF WAREHOUSE  
18th & MINNESOTA, KANSAS CITY, 2Packing, Moving, Storing and Shipping. Private Siding  
Agent for Allied Van Lines, Inc.

L. J. CANFIELD, Proprietor Telephone Dr. 3450



## PARSONS, KANSAS

Member of A.W.A.

PARSONS COLD STORAGE COMPANY  
2021 GABRIEL AVE.COLD STORAGE AND MERCHANDISE WAREHOUSING  
POOL CAR AND SPOT STOCK DISTRIBUTION  
QUICK SERVICE AND REASONABLE RATES10 car siding on MK&T—Free switching. Pick up and delivery service  
for 2 Motor Freight lines operating out of our terminal.

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Agent for Allied Van Lines, Inc.

## TOPEKA TRANSFER and STORAGE Co., Inc.

Established 1880

A.W.A. N.F.W.A.  
FIREPROOF WAREHOUSES FOR MERCHANDISE & HOUSEHOLD GOODS  
TWICE DAILY TRUCK SERVICE TOPEKA-KANSAS CITY  
CITY-WIDE DELIVERY SERVICE  
Private Switch Connections AT & SF, CRI & P. U.P. and M.P.

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A Modern Distribution and  
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Brokers Office & Warehouse Co.149 North Rock Island Ave., Wichita 2  
B. W. BILLINGSLEY, JR., Manager  
Member of American Chain of Warehouses



KANSAS—KENTUCKY—LOUISIANA—MAINE—MARYLAND

WICHITA, KANSAS

Write or Wire



**Cassell**  
TRANSFER & STORAGE CO.  
WICHITA, KANSAS  
Fireproof Storage and Sprinkler System

WICHITA, KANSAS



**UNITED WAREHOUSE COS.**  
Merchandise Warehouses  
TWO BIG MARKETS  
WICHITA, KANSAS ← → KANSAS CITY, MO.

LOUISVILLE, KY.

**Louisville Public Warehouse Company**  
131 EAST MAIN ST., LOUISVILLE 2  
25 WAREHOUSES 944,000 SQUARE FEET  
Louisville Member  
AMERICAN CHAIN—DISTRIBUTION SERVICE, INC.  
Gen'l Mdse. ——— H. H. Goods

NEW ORLEANS, LA.

E. B. FONTAINE, Pres. & Mgr.

**Commercial Terminal Warehouse Company**  
INCORPORATED  
**Modern Merchandise Warehouses**

A dependable agency for the distribution of merchandise and manufactured products.

Member of  
  
Storage Cartage Forwarding  
Distributing Bean Cleaning  
and Grading Fumigating

Office 402 No. Peters Street  
NEW ORLEANS 16 LOUISIANA  
New York—Chicago

NEW ORLEANS, LA.

Represented by  
Distribution Service, Inc.  
New York Chicago  
San Francisco

**Douglas Shipline Storage Corporation**  
**Douglas Public Service Corporation**



New Orleans, La.  
Sprinklered storage —  
1,050,000 square feet.  
Mdse. and Furniture.  
Switch track capacity —  
100 cars.  
Nine warehouses, convenient to your trade.  
Loans made against negotiable receipts.  
Trucking Department —  
crating 105 trucks.  
Insurance Rates 12¢ to 46¢.



NEW ORLEANS, LA.

Member of A.W.A.

**Independent Warehouse Co., Inc.**

2800 CHARTRES STREET  
Specializing in MDSE Distribution  
— Operating Under Federal License —  
All concrete Warehouses, sprinklered, low insurance rates, Low handling costs. Located on Mississippi River—shipside connection. Switching connections with all rail lines. State Bonded. Inquiries Solicited.



NEW ORLEANS, LA.


New Orleans Merchandise Warehousemen's Ass'n.

**MALONEY TRUCKING & STORAGE, Inc.**  
133 NORTH FRONT ST.

An able servant to the PORT OF NEW ORLEANS  
Complete warehousing facilities—Distribution—Weighing—Forwarding—Fumigating—Storage—Cartage—Field Warehousing—Office Space—Display Rooms—Sprinklered Risk.

\* UNITED STATES AND STATE BONDED


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11 WEST 42ND ST. STUN 6-7048 1525 NEWBERRY AVE. MON 5531



NEW ORLEANS, LA.

T. E. GANNETT, Owner

**Standard Warehouse Company**  
100 Poydras St., New Orleans 8, La.  
**Complete Warehousing Service**



measures which put a brake on that free flow of commerce across this great land which is, in a way of speaking, the life blood of the nation and makes us one people instead of being 48 provincial principalities.

All who are interested in one nation bound together by unimpeded commerce at state lines must hold to the objective that any motor vehicle, the automobile, the bus, the truck, the truck-trailer, having secured from the Interstate Commerce Commission whatever identification, if any, is required, and having complied with its own state laws, should be free to move in interstate commerce without further requirements or charges to the farthest corners of the land.

**Ready-Power Co. Becomes Michigan Corporation**

As a result of increased business arising from participation in the war effort, The Ready-Power Co., Detroit, Mich., has

been incorporated under the laws of the State of Michigan.

Organized in 1924 by Harold D. Gumpfer and carried on as an individual enterprise since that date, the company, which manufacturers power units for electric industrial trucks and gas and Diesel engine electric plants, has had a steady growth.

Officers of the new company are: H. D. Gumpfer, president and general manager; William A. Butner, A. B. Frederick, Arch R. Smith, vice-presidents, and Hobart D. Hoyt, secretary-treasurer.

**Large Tea Cargo Received in New York**

Port Warehouses, Inc., 41-47 Vestry St., New York, claims to have received the largest shipment of Ceylon India tea ever to arrive in the Port of New York on one ship. The shipment, which arrived early last month, is said to contain over 4,066,427 lb. of Colombo tea, the equivalent of 34,482 chests.

Campbell C. Groel, president and treasurer of Port Warehouses, Inc., has secured an additional 10,000 sq. ft. of floor space in the R. E. Dietz Co. building at 60 Lighthouse St., adjacent to his Lighthouse warehouse. To handle the shipment the firm was compelled to secure extra labor a week in advance of the arrival of the cargo.

**Wins Army-Navy "E" With "White Star"**

Anthony Co., Inc., Streator, Ill., manufacturer of hydraulic hoist pump bodies, steel and wood cargo and express bodies, and hydraulic "tailgate loaders," has been awarded the Army-Navy "E" Pennant bearing a "white star," for continued greater production achievement.

The firm is understood to have been the first company in the hoist and body industry to receive the Army-Navy "E" award. Addition of the "star" is given for ability to meet more exacting standards and is cited as indicative of a company's resourcefulness.

## Dehydrated Foods And Transportation

(Continued from page 36)

be less transportation of materials to construct that store? Is it not true that with the development of dehydration where you at your home today use gas for half an hour to cook something, that you are going to cook the dehydrated food in about six or seven minutes and therefore there will be less consumption of gas which reacts to the coal mines and that therefore affects transportation?"

Mr. Wilson: "All those are good. You cannot deny that from the point of the shipper. He should know.

"I am not sure about the one point of cooking food, whether it is going to require less cooking or not. In the case at our home we cooked the food the same length of time as we would ordinarily. In other words, until it was tender. I believe it took the same amount of time.

"Shipping space very definitely will be lowered. There will definitely be less requirement for shipping space in the case of dehydrated food, and if everybody in the country used nothing but dehydrated food, I would say certainly that the transportation requirements are lowered. We still, however, have to face this customer acceptance point and that

## The Driver Was Arrested . . .

A big truck was loaded with special ammunition urgently needed in North Africa, and started away in the middle of the night to catch a ship in a Florida port. But the load, which was legal where it was put aboard the truck, exceeded the weight limits of one of the states through which it had to pass. The driver was arrested and held. The ship was delayed 24 hours, and because complications involving tides and other factors a convoy was held up for two days.

Now, the full weight of federal authority is promised in an effort to put an end to Balkanizing the U. S. in the matter of highway transportation. This is a timely move because when the war threw all transportation out of kilter manufacturers were beginning to catch up with big-scale distributors and discovering the efficiencies and economies of highway transportation in assembling parts and materials as well as in shipping finished goods.

The conflicting laws of the various states as to length, height and weight of trucks and the working conditions of crews are but one of the two major headaches of highway shippers. The other, which Uncle Sam seems not to have encountered as yet, is the substitution of local labor for regular drivers when certain metropolitan areas are entered.—Modern Industry.

broad statement, because I do not think anybody knows what the consumer acceptance is going to be."

## Air Cargo And Distribution

(Continued from page 45)

time absorption in transactions within even hemisphere areas may be counted in hours or days but no longer in weeks or months.

Increases in business volumes with practically existing facilities as regard fixed properties, capital costs and general overhead may consequently be expected in post-war period to a degree of not just one-fifth but possibly double the present quantity when it comes to larger distribution areas.

Interpreted in figures, the savings by air transport, as a result of doubling of business volume in larger distribution areas with existing facilities, may reach as high as 10 per cent of value of shipments for the producer and 10 per cent for the dealer.

Turnover, with its aspect also of profits in more transactions, then looms as a vital factor with which time economy is definitely linked. Reappraisal of the whole subject in its application to distribution of products in wider areas seems therefore well warranted by

is what holds me back in making any

### SHREVEPORT, LA.

The Distribution Center  
of ARK.—LA.—TEX.

#### SPECIALIZING IN

#### MERCHANDISE STORAGE and POOL CAR DISTRIBUTION

Modern fireproof facilities with sprinkler system . . . Private siding . . . Watchman service . . . Low insurance rate . . . Truck connections with all motor freight lines . . . Courteous, efficient service for thirty-two years . . . IF you want your customers to get the best in Distribution Services HAVE HERRIN HANDLE!!!

HERRIN TRANSFER and WAREHOUSE CO., INC.  
MARSHALL AT DAVIS STREET, SHREVEPORT, LA.  
Household Goods Storage and Transfer. Trucking Delivery Service.



### BANGOR, MAINE

#### McLAUGHLIN WAREHOUSE CO.

Established 1875 Incorporated 1918

#### General Storage and Distributing

Rail and Water Connection—Private Siding

Member of A.C.W.—A.W.A.—N.F.W.A.—Agent A.V.L.

### BALTIMORE, MD.

#### CAMDEN WAREHOUSES

Operating Terminal Warehouses on Tracks of

The Baltimore & Ohio Railroad Co.

A.D.T. Private Watchman, Sprinkler

Storage—Distribution—Forwarding

Tobacco Inspection and Export—Low Insurance Rates

Consign Via Baltimore & Ohio Railroad

### BALTIMORE, MD.

U. S. Customs  
Bonded Draymen



MAIN OFFICE: PHILADELPHIA ROAD

#### DAVIDSON TRANSFER & STORAGE CO.

Household Goods and Merchandise—Storage—Delivery

—Uncrating—Special Flat Bed Trucks for Lift Cases.

Agents: Allied Van Lines . . . Member N. F. W. A.

### BALTIMORE, MD.

For Details See Directory Issue  
Distribution and Warehousing

#### BALTIMORE FIDELITY WAREHOUSE CO.

Hillen & High Sts., Baltimore 2

T. E. WITTERS, President

Baltimore's Most Modern Merchandise Warehouses

Rail and Water Facilities

Pool Car Distribution—Storage—Forwarding

Private Siding Western Maryland Railway



### BALTIMORE, MD.

Martin J. Reilly, Pres. A. Bernard Heine, Vice-Pres.

#### FIDELITY STORAGE CO.

2104-63 MARYLAND AVE.

Baltimore's Modern Fireproof Warehouse

Your Clients Efficiently Served

All Collections Promptly Remitted

#### MOTOR FREIGHT SERVICE

Household Goods

Pool Car Distribution

Merchandise

Member of N.F.W.A.—Md.F.W.A.—Md.M.T.A.

Agent for Allied Van Lines, Inc.

### BALTIMORE, MD.

Incorporated 1905

#### Baltimore Storage Co., Inc.

N. W. Cor. Charles and 26th Sts.  
MODERN FIREPROOF WAREHOUSE. EVERY FACILITY  
FOR THE HANDLING OF YOUR SHIPMENTS.

Exclusive Agents for

AERO MAYFLOWER TRANSIT CO.

Vans Coast to Coast

Canada and Mexico



### BALTIMORE, MD.

#### Norman Geipe VAN LINES

& FIRE-PROOF  
STORAGE WAREHOUSES

524 to 534 WEST LAFAYETTE AVENUE

The Most Complete Moving and Storage Organization in Baltimore.

Long Distance Moving to 34 States—Certificate granted—MC-52452.

Tariff-Independent Movers' and Warehousemen's Assoc.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

D and W, October, 1943—87

## MARYLAND—MASSACHUSETTS

BALTIMORE, MD.



HAMPOEN TRANSFER & STORAGE CO.  
3630 FALLS ROAD • BALTIMORE

**NORTH AMERICAN  
VAN LINES, INC.**  
Long Distance Moving

BALTIMORE, MD.

**McCORMICK WAREHOUSE COMPANY**  
LIGHT AND BARRE STREETS, BALTIMORE 2, MD.

Concrete sprinklered warehouse centrally located. Private siding handling CL shipments via B&O, WM R.R. and PENN R.R. Low storage and insurance rates. Negotiable receipts issued. Pool car distribution. Motor truck service.

BALTIMORE, MD.

**SECURITY STORAGE CO.**

15 W. NORTH AVE.

EFFICIENT WAREHOUSEMEN  
MOTOR VAN SERVICE

RESPONSIBLE AND COURTEOUS MANAGEMENT



BALTIMORE, MD.

Founded 1893

**TERMINAL WAREHOUSE CO.**

Davis & Pleasant Sts., Baltimore 2  
Operating four Modern Warehouses on tracks  
of Pennsylvania Railroad Company.

Resources \$750,000

Trucking Storage

A.D.T. Watchmen

Pool Car Distribution

Bonded Space

Financing Represented by  
Associated Warehouses, Inc., New York and Chicago



BOSTON, MASS.

**CLARK-REID CO., INC.**

GEO. E. MARTIN, President

**GREATER BOSTON SERVICE**

HOUSEHOLD GOODS STORAGE—PACKING—SHIPPING

OFFICES: 83 Charley St., Boston

380 Green St., Cambridge

MAIL: F.W.A. CLARK, W.A.N.F.W.A. V.L.



BOSTON, MASS.

**CONGRESS STORES, Inc.**

38 STILLINGS ST.

**GENERAL MERCHANDISE STORAGE**

Central Location—Personal Service

Pool Car Distribution

Sidings on N. Y., N. H. & H. R. R.

Protected By  
A.D.T. Service

Member  
Mass. Warehousemen Assn.

BOSTON, MASS.

Established 1896

PACKING

MOVING

D.W.

**DUNN CO.**

STORING

SHIPPING

Member May W. A.

1175 Washington St.

BOSTON, MASS.

**FITZ WAREHOUSE CORPORATION**

operating

**ALBANY TERMINAL STORES**

137 Kneeland Street, Boston

**GENERAL MERCHANDISE STORAGE**

B. & A. R.R. Delivery

Represented by  
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO  
11 WEST 42ND ST. PHIN 6-0046 1525 NEWBURY AVE. WILSON

business executives trying to visualize conduct of international trade after the war. It should graphically show how time and its savings in the cycle of a business transaction determine with the factors of Value, Weight and Distance

whether a product is likely to be merchandized with air transport in the post-war period. The influence of Value as a factor warranting investigation in this connection will be outlined in the November issue of D & W.

## Chicago Traffic Group Has Educational Plan

The Junior Traffic Club of Chicago, whose more than 1,700 members make it the largest organization of its kind in the world, is developing an educational program for the coming winter season which is aimed to offer benefits to its members as individuals rather than as representatives of the business houses which they serve.

At the opening meeting, Sept. 9, Peter J. Klein, traffic manager, the Crackerjack Co., and president of the Club, pointed out that, because of present day business conditions, this stress on personal improvement is necessary. Business concerns, he said, no longer need worry about getting business and are not encouraging their traffic men to take advantage of the services offered in the past by traffic clubs generally to make them better functioning transportation directors.

This attitude, Mr. Klein contended, is wrong. Traffic clubs, to survive, he said, must plan intensified activities offering genuine personal benefits to the member individuals. While not all details of the Chicago club's educational program to this end have been developed, it will, Mr. Klein stated, be the most comprehensive ever attempted. (SLAUSON)

## Nine States 'Ease' Highway Barriers, 14 Others 'Liberalize' Their Laws

NINE state legislatures, this year, have eased some of the laws on their statute books affecting the free flow of interstate commerce on the highways, and 14 other states have liberalized laws regarding motor vehicles, according to information recently released by the Public Administration Clearing House, Washington, D. C.

Maine exempted from payment of excise taxes trucks or trailers with a rated carrying capacity of more than one and one-half tons and owned in a state where a similar tax has been paid and where similar exemption is granted to Maine trucks.

South Dakota empowered its highway commission to enter into reciprocity agreements with other states with regard to license, registration and other fees for unusual use of highways in wartime.

Oregon granted nonresidents the privilege of using state highways without payment of extra fees, and Utah and Oklahoma provided for reciprocal agreements with other states regard-

ing licensing of trucks and trailers.

Other states that passed legislation along these lines were Michigan, Minnesota, New Hampshire and Wisconsin.

New Mexico liberalized size and weight limitations for trucks and allowed issuance of permits to trucks to carry overloads, good for a period of a year. Maine passed a somewhat similar law.

Arkansas increased the maximum allowable weight on single-axle vehicles and lowered the license fees for certain types of trucks. Kansas provided for short-period registration for trucks hauling loads of large tonnage, and Nebraska authorized increase of maximum loads until 1945. Size and weight restrictions also were liberalized in Alabama, Arkansas, Minnesota, Missouri, Nebraska, North Carolina, Oregon, South Dakota and Pennsylvania.

Michigan, North Dakota and North Carolina left hampering highway restrictions untouched, but gave various state officials authority to suspend limitations.



**BOSTON, MASS.**

**Hoosac Storage and Warehouse Company**  
Lechmere Square, East Cambridge, Mass.  
**FREE AND BONDED STORAGE**  
A.D.T. Automatic Fire Alarm  
Direct Track Connection B. & M. R. R.  
Lechmere Warehouse, East Cambridge, Mass.  
Hoosac Stores, Hoosac Docks, Charlestown, Mass.  
Warren Bridge Warehouse, Charlestown, Mass.

**BOSTON, MASS.**

W. A. KELSO A. WALTER LARKIN  
Pres. Treas. & Mgr.  
C. F. COWLEY, Asst. Treas.  
**J. L. KELSO COMPANY**  
Established 1894  
General Merchandise Warehouses  
UNION WHARF, BOSTON  
Connecting all railroads via A.D.T. Service  
Union Freight Railroad Co. Motor Truck Service  
Member of Mass. W. A.

**BOSTON, MASS.**

Phone: CAP. 7760  
**MERCHANTS WAREHOUSE CO.**  
453 COMMERCIAL STREET, BOSTON 13  
Central Location. Private railroad siding, connected  
to all railroads.  
Free and Bonded Storage. M. W. A.  
One of THE CHAIN OF TIDEWATER TERMINALS and Inland Warehouses

**BOSTON, MASS.**

**QUINCY MARKET COLD STORAGE  
AND WAREHOUSE COMPANY**  
Incorporated 1881  
178 Atlantic Ave., Boston 10, Mass.

**BOSTON, MASS.**

**WIGGIN TERMINALS, Inc.**  
50 Terminal St. Boston (29) Mass.  
**STORAGE**  
B. & M. R.R. N. Y., N. H. & H. R.R.  
Mystic Wharf. E. Street Stores  
Boston South Boston

**BOSTON, MASS.**

ESTABLISHED 1830  
**D. S. WOODBERRY CO.**  
P. O. BOX 122, NORTH POSTAL STATION, BOSTON  
Largest Pool Car Distribution Specialists for New England  
TRUCKING & STORAGE  
BOSTON & MAINE R. R. SIDING

**FALL RIVER, MASS.**



REMY MOVING COMPANY  
310 THIRD STREET • FALL RIVER  
**NORTH AMERICAN  
VAN LINES, INC.**  
Long Distance Moving

**FITCHBURG, MASS.**

**BROAD STREET STORAGE**  
356 Broad St.  
IN CENTRAL NEW ENGLAND  
MERCHANDISE STORAGE  
Brick building, clean, dry, heated, fully sprinklered, automatic fire alarm,  
low insurance rates.  
B & M R.R. siding

**LYNN, MASS.**

**LYNN STORAGE WAREHOUSE CO.**  
154-156 Pleasant St.

The only Fireproof warehouses on the North Shore complete  
with every facility and private siding for the storage and  
distribution of merchandise, automobiles and household  
goods. 100,000 sq. feet of space.  
Distributors—Packers—Shippers—Movers  
Member N.F.W.A.—Mass. F.W.A.



**NEW BEDFORD, MASS.**

**NEW BEDFORD STORAGE WAREHOUSE CO.**

MAIN OFFICE — 152 FRONT STREET  
Large modern warehouses centrally located in wholesale  
district—specially constructed for storage, handling and  
distribution of general merchandise.  
Storage and Industrial Space for Rent or Lease  
Furniture, Storage, Packing and Shipping  
Member of AWA—NFWA—AVL—American Chain of Wholes.



**PITTSFIELD, MASS.**

**T. ROBERTS & SONS, INC.**  
Local and Long Distance Furniture Moving  
Fireproof Storage Warehouses  
Household Goods Storage — Packing — Shipping  
Merchandise Storage and Distribution  
Pool Car Distribution  
DIRECT R.R. SIDING B. & A. R.R. OR ANY R.R.

**SPRINGFIELD, MASS.**



ANDERSON & BENSON CORP.  
270 LIBERTY ST. • SPRINGFIELD

**NORTH AMERICAN  
VAN LINES, INC.**  
Long Distance Moving

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General Merchandise and Household Goods Storage. Cold Storage for  
Butter, Eggs, Poultry, Cheese, Meats and Citrus Fruits  
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214 BIRNIE AVENUE, SPRINGFIELD, MASS.  
U. S. Bonded Warehouses Pool Car Distribution Household and  
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**J. J. Sullivan The Mover, Inc.**  
Fireproof Storage  
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HOUSEHOLD GOODS STORAGE. Packing.  
Shipping. Pool Car Distribution of All Kinds  
Fleet of Motor Trucks

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EDGETT & HALL TRANSFER CO.  
220 McCAMLY ST. • BATTLE CREEK

**NORTH AMERICAN  
VAN LINES, INC.**  
Long Distance Moving

## Air vs. Service Carriers

(Continued from page 47)

to the extent of \$18,000,000 a year over a 50,000-mile expansion program. CAB people feel that new enterprise rooted in local pride should be given an opportunity to develop the small-town services. It is felt that many towns which receive freight and mail will not be able to support passenger service. Incidentally, the All-American Aviation line, largely serving an area without passenger schedules, showed an increase in express pound-per mile of 162 per cent last year.

Air cargo rates have been in excess of 80c. per ton-mile. Freight by rail, l.c.l., costs an approximate average of 3.29c. per ton-mile. Trucking rates average 4c. a ton-mile. Carload lots by rail cost less than 1c. per ton-mile, while ocean shipping is considerably cheaper. In South America cargo is the chief revenue source of airplane operations, and averages 20c. per ton-mile.

Poundage carried in airplanes for domestic needs in this country in 1941 exceeded 11,000,000,000. For the year ending June 30, 1943, pound-miles of cargo carried in this country for domestic distribution exceeded 30,000,000,000. Rates have been reduced by 10 per cent to 12 per cent.

## MIDGET and GIANT



Here are the smallest and largest shock-absorbing landing gear strut and wheel assemblies mass produced by Bendix Aviation Corp. The small strut equips an Army primary trainer plane. The large strut, which weighs 421 lb., equips the heaviest American bombers and cargo carriers. At South Bend, Ind., and in sub-contractors' plants, Bendix produces landing gear struts for 26 types of Army and Navy fighters, bombers, transport and training planes at the rate of several thousand a month.

CAB forced revision of the contracts with the Railway Express Agency. Air lines may now take cargo from any source, providing their rate is 3 times the maximum railroad express rate. CAB is certain the planes of the immediate future will have much lower operating costs, and that the cargo planes designed solely to carry freight will be able to service profitably at from 15c. to 20c. per pound-mile revenue.

Chairman Pogue of the CAB thinks the quickened economy caused by air traffic will produce compensating business for surface transports. He points out that cargo, which in the old days had to be transshipped three or four times, took five or six weeks to reach China from this country; now it may be delivered without any transshipment by planes in three or four days. He thinks the airplane will send our salesmen to all parts of the globe with their goods, and he points out that markets will be established for perishables as close and even closer than our domestic market by surface transport. He points out that handling costs will be reduced amazingly, and that packing will not be so expensive. In this connection, Naval Air Transport recently reported it had effected a saving of 15 per cent in shipping weights.

Mr. Pogue had stated that the "speed" of the airplane makes it possible to service products sold by a manufacturer

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#### Central Detroit Warehouse

Located in the heart of the wholesale and jobbing district, within a half-mile of all freight terminals. Modern buildings, lowest insurance rate in city.

#### Michigan Terminal Warehouse Wyoming and Brandt Avenues

Modern concrete buildings, fully sprinklered, serving the west side of Detroit and the city of Dearborn. Specializing in heavy and light package merchandise and liquid commodities in bulk. Connected directly with every railroad entering the city.

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## Henry & Schram Storage & Trucking Company

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CAR LOAD DISTRIBUTION



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vania—Pere Marquette Railways

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service, offering every facility known  
to modern distribution.

New  
Ultra-Modern  
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Trunk Line  
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Complete Service

Continent-wide Connections

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Facing the Busiest  
Thoroughfare in

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inexpensive, specially designed offices under the same  
roof with a complete warehouse and distribution service.

150,000 sq. ft. located on Detroit's busiest thoroughfare.  
Private siding facilities for 10 cars with free switching  
from all railroads. Large, enclosed loading dock. Our  
own trucks make prompt reshipment and city deliveries.

## JEFFERSON TERMINAL WAREHOUSE

1900 E. Jefferson Ave.

DETROIT 7, MICHIGAN

to a consumer located at a great distance  
with the same ease with which he might  
be able to serve the consumer who is  
close at hand through the facilities of  
surface transport.

"With the speed of air transportation  
the need for wholesalers, distribution  
centers and retailers to maintain large  
inventories, will be diminished. Re-  
tailers at home will no longer find it  
necessary to place an order for merchan-  
dise weeks or months in advance and  
blind to the actual need which they  
might be experiencing at the time for  
for which they have been ordering.  
Goods may come by air when the need  
is most acute. New possibilities have  
been opened up by technological develop-  
ments. New fuels, jet propulsion,  
rockets, the use of steam as a power  
factor, and a host of other possibilities  
are being studied, and developed. A host  
of things will be shipped by air in order  
to get there first with the best at a  
profit."

Incidentally, late in August, one mid-  
night, two planes went into the air  
loaded solely with freight. One started  
from Los Angeles, the other from New  
York. This was the beginning of the  
first regular transcontinental air cargo  
service inaugurated by American Air-  
lines.

The future, is the subject of another  
Lea bill, bi-product of HR 1012, which  
amends the Civil Aeronautics Act. The  
second Lea bill known as HR 2959, pro-  
vides machinery to dispose of the huge

quantity of surplus planes which will  
survive the war. CAB is responsible for  
the statement that the armed services  
today operate air transport routes in  
excess of 150,000 miles, covering all the  
world.

In addition to this Army and Navy  
and Coast Guard cargo service, the com-  
mercial carriers transport cargo over  
110,000 miles of regular routes. Produc-  
tion goals in planes were 90,000 this  
year, and 125,000 in 1944. Of this num-  
ber, this year, we will have 15,000 new

transport planes. It isn't healthy these  
days even to speculate on how many  
planes total we possess. CAB predicts  
from the close of hostilities a period of  
two to five years before new types are  
available for the market.

The Lea bill, HR 2959, proposes to  
place the dispersal of surplus aircraft  
after the war in the hands of CAB.  
CAB, however, wants the cooperation  
of the War Department, the Navy, the  
State Department, the Treasury, and  
the Department of Commerce. The most

REMARKABLE TRACTION and  
great power delivered at all six  
wheels make this newest Army  
"mountain mule" something to  
talk about. It is the new Dodge  
personnel carrier and cargo truck  
which can climb grades impossible  
with any commercial car or truck  
driven only by the rear wheels.  
The photo shows test engineers  
driving the carried up a 62 per  
cent grade with a capacity load.  
Its post-war possibilities are ob-  
vious. . . . The new vehicle's ability  
to weave in and out of steep  
ditches and mud craters is said  
to be because it is as wide as  
it is high.





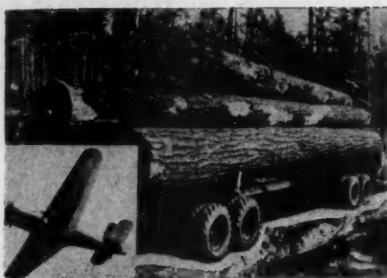
popular idea seems to be to scrap most of the planes, to use a few as stop-gaps, and to sell others abroad. Washington thinks the cargo plane of the post-war period will be a vast improvement over any planes that survive the war.

The other Lea bill, HR 1012, is still in Committee. The chief ground of contention is the proposal to invest the Federal Government with power to create local airport zones in order to prohibit multiple taxes of airbase properties by several States. This debate has led to other conflicts, the most sharp of which is the opposition of bus, truck, and railroads to the taxes which they pay to maintain the airports and facilities used by the airports.

The fight over the railroad and motor transport taxes apparently is largely a demonstration; but the conflict over the multiple taxes by several States has seriously revived the old States' Rights controversy. E. W. Stanford, director of Alabama Aviation Commission, has come out in strong opposition with the declaration that under the proposed law nothing could be flown in Alabama except commercial planes. Many of the Southern and Western States will fight Federalization of their airports and other air facilities with all their power.

On the other hand, the people engaged in the air industry point out that if the States are permitted to make a

## TREES THAT FLY



It is hard to believe that the massive, heavy logs shown on this big Fruehauf trailer will take to the air. Yet, the logs when converted into plastic plywood in modern mills become planes such as this Timm trainer shown in insert.

multiplicity of laws the situation in flying over the continent will be much the same as the train which travelled from Paris to Vienna before the war. The traveler was obliged to submit to various inspections at least a dozen times when passing from one national boundary to another. There also is the proposal to subsidize the various domestic airlines to enable them to expand as international carriers. It is the ambition of the CAB to bear the same relation to

the air which the Interstate Commerce Commission bears to railroads.

On the international front the U. S. Maritime Commission has created a Committee consisting of Rear Admiral Howard L. Vickery, Thomas M. Woodward, and R. E. Anderson, to coordinate steamship and airline activities. They have asked Congress to amend the Merchant Marine Law in order to permit steamship lines to own and operate airline.

Mexico has made very clear it wants no help in developing either its airlines or its highways or railroads. The Canadian Premier, MacKenzie King, has emphatically placed on record the statement that all air concessions terminate with the end of the war. Trans-Canada will be the only service permitted to operate as an international line.

The British, who say the airplane industry is now the chief industry of the United Kingdom, propose to build a fleet of 5,000 transports. In the United Kingdom itself, the three major railroad lines already have arranged to take over the U. K. domestic airlines. Congress has come out strong for some deal whereby the foreign nations which have had substantial help from us in any form shall be asked to give us airbase, railroad termini, or other transport facilities. Senators Millard Tydings, Robert B. Reynolds, and Charles McNary, have sponsored this demand. Sena

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Long Distance Moving

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Established 1882



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STORAGE & CARTAGE CO.  
Cass & Congress Sts., Detroit, Mich.  
Household Goods and Merchandise Storage  
Moving—Packing—Shipping  
Personal Service Guaranteed  
Members—A.W.A.—N.F.W.A.—Allied Van Lines



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Members N. F. W. A.



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STORAGE AND MOVING, PACKING AND SHIPPING  
Agent for Allied Van Lines, Inc.



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Established 1919



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430-440 No. Larch St., Lansing, Mich.  
Merchandise and Household Goods Storage  
—Modern Fireproof Building—  
Fuel Car Distribution—Private Siding  
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Trucks for Local Deliveries  
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"WE KNOW HOW"  
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**... AT WAREHOUSE COST**

- It is possible here to secure the same high-grade service you would expect in your own branch warehouse, but at less expense and without worry or trouble.
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- Merchandise storage, cartage, pool car distribution, daily direct service to all points within 75 miles by responsible carriers.

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Complete Facilities At The Three Important Centers  
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BEN KOCH, PRES.

GEO. KEENE, T. M.

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Local and Long Distance Moving  
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Household Goods, Merchandise Storage and Transfer. Motor Freight Terminal. Printed Tariff Schedule. Merchandise Pool Cars distributed. Ship C.L. via G.N. or N.P.  
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Industrial Facilities

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Member of N.F.W.A.—A.W.A.



Special attention given household effects of your officials and employees moved from or to St. Paul.

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Complete Branch House Service

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**WAREHOUSE CO.**

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**SUNFLOWER LINES, INC.**

Successors to Tonnies Transfer & Storage Co.

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Distribution and storage of merchandise  
Fireproof warehouses—Motor van service  
On railroad siding—Lowest Insurance rates  
**PACKING—STORAGE—SHIPPING**  
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Distribution Cars are so handled as to carefully safeguard your own interests and those of your customers.

Three Fireproof Constructed Warehouses

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### KANSAS CITY, MO.

Established 1880

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Efficient, Complete Merchandise Warehousing Service

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In Center of Wholesale and Freight House District

### KANSAS CITY, MO.

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**CROOKS TERMINAL WAREHOUSES**

"Kansas City's Finest Warehouses"

A.D.T. BURGLAR ALARM

LOWEST INSURANCE RATES

COOL ROOM FACILITIES

BEST RAILROAD FACILITIES

IN THE HEART OF THE FREIGHT HOUSE AND WHOLESALE DISTRICT

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Brokers' Warehouse, Security Warehouse, Terminal Warehouse

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**STORAGE AND DISTRIBUTION**

**Merchandise Warehouses, Inc.**

300,000 sq. ft. Trackage on three railroads Truck docks—Low Insurance

ST. LOUIS AVE. & MULBERRY ST.

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**Mid-West Terminal Warehouse Co.**

2020-24 Walnut St.

"Right in the midst of Business"

Complete Warehouse Service—Pool Car Distribution—We invite your inquiries.

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See our ad.

### KANSAS CITY, MO.

Established 1903

POOL CAR TERMINAL—Spacious, enclosed, sheltered loading Dock, facing wide Street in Wholesale and Shipping District on B&O-Alton Railroad siding.

**MERCHANDISE STORAGE — GENERAL CARTAGE**

Sprinklered—A.D.T.—Fleet modern Equipment

**THE ONLY WAY TRANSFER & WAREHOUSE CO.**

1400-10 St. Louis Avenue

### ST. LOUIS, MO.

Merchandise Storage and Distribution.

Track Connections with All Rail and River Lines.

**RUTGER STREET WAREHOUSE, INC.**

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200,000 Sq. Feet of Service

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## Tyler Warehouse & Cold Storage Co.

### Merchandise and Cold Storage

Unexcelled service at lower rates

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St. Louis 6, Mo.

Member of A.W.A.—Mo.W.A.—St.L.M.W.A.

tors James Mead and Ralph Brewster are on the global inspection tour and have been instructed by Senator Truman to inspect and report upon the hundreds of airports we have built in foreign countries, and to report upon railroad assets scattered around the world, as well as harbor and similar facilities.

The thought is that we should gain advantages by lend-lease operation in reverse. Tydings particularly wants us to obtain the eight airbases involved in the destroyer deal. Negotiations for some of these rights and properties are being conducted by Assistant Secretary of State Adolph A. Berle, Jr., and by Secretary of the Navy Frank Knox.

Congress is rather lukewarm about the proposed freedom of the air, which would permit every nation to use our airways and our facilities if they accord us the same privileges. CAB is for the freedom of the air, but goes further than Congress which does not wish to be out-

foxed by the British in the scramble for world-wide air facilities. The CAB plan would give each agreeable nation the right of commercial air transit over our airways, enabling its commercial planes to fly to their commercial outlet.

### Cargo Planes . . .

It has been said with the voice of authority that fleets of cargo-carrying airplanes are a dream which probably will not come true for many years. But we may see them after the war—in good numbers. It has been pointed out that costs per ton-mile would be prohibitive under peace-time conditions. This is, of course, the extremely practical view and it is not without merit. Yet if this had been the attitude of the pioneers in transportation, we would be using oxcarts and the stagecoach.

(Chicago Journal of Commerce)

That means they could not take cargoes from our country, nor could we take cargoes from theirs.

The commercial airlines are eager for this internationalization of the airways. But they are violently opposed to what they call the plan for a United Nations Airlines. The British frankly are for monopoly in operating the airlines, while we, of course, still feel that competition is sound.

Meanwhile, Congressman Lyle Boren of Oklahoma, member of the House Interstate and Foreign Commerce Committee warns us that air cargo still is less than one per cent of the cargo carried by all surface carriers, and suggests "if all planes delivered for service this year were assembled in one place and took off on a 2,000 mile flight they could carry only 20,000 tons of cargo." He warns impressively against over-optimism.



## San Francisco Airports

(Continued from page 51)

"To travel half-way around the 'El-way' loop at 35 miles per hour will require but two and one-half minutes. A traffic study across the area embraced by the proposed 'El-way' was made on June 10, 1943. At that time it was found that it took seven and three-fourths minutes to travel between First and Seventh Streets on Market Street, eight minutes between California Street at Montgomery to Post and Taylor Streets, and seven and three-fourths minutes from Sixth and Howard Streets to Post and Taylor Streets. The streets then were practically free of traffic, with the main interference being that of stop signals."

Counting in two miles of extensions and feeder ramps, the project is estimated to cost \$35,000,000. Of this, \$15,000,000 would be spent for acquisition of right-of-way.

The Golden Gate International Air Port is another concrete and practicable plan, being aggressively sold by a large group of transportation men, and, according to one of its leading sponsors, capable of being realized even before the war's end. It is credited with having aroused the interest of military authorities. Fred D. Parr, president, Parr Terminal Co., which operates the Rich-

mond Terminal, originated this plan, which calls for a \$20,000,000 expenditure to convert tidelands owned by the cities of Albany and Berkeley into what would be "one of the world's largest airports."

This project was announced to the public in June with a banquet attended by some of the region's outstanding traffic men, a half dozen of whom participated in a program of speeches. Capacity of the banquet hall was 250 and so great was the interest that many were turned away.

The coming of the railroad changed the situation because it was necessary for the road to adopt the time of some particular city on which to base their schedules. The Pennsylvania Railroad, for instance, ran on Philadelphia time

while all other roads out of New York used New York time, a difference of five minutes. Hotels often hung several clocks in their lobbies, each with the name of a railroad under it, and each showing a different time.

In 1881 the railroads held a General Time Convention, the time problem was turned over to Allen, its secretary. He recommended a series of time belts running north and south across the country, with one hour's difference between each zone. It was unanimously adopted, and on November 18, 1883 at 12 o'clock noon, every railroad in the country changed its schedule to conform with the new plan.

Cities and towns throughout the country soon followed suit, and the plan later spread throughout the world.—*New Jersey Bell Telephone Co.*

## Origin of Standard Time

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● A one-word description of our modern warehousing facilities—large enough to meet the requirements of any shipper, yet so compactly organized that all the usual annoying details of wide-spread organizations are eliminated.

Even the city is compact, when viewed from our location—all the important business districts can be reached in 15 minutes. We operate a continuous distribution service, city wide and county coverage, with an up-to-the-minute fleet of motor trucks.

Consign cars to yourselves in our care via any railroad entering the city. Terminal Railroad Association delivery: Reciprocal Switching.

**S. N. LONG WAREHOUSE**  
ST. LOUIS, MO.

**USE  
LONG SERVICE**  
from shipper  
to market

**COMPACT  
COMPLETE  
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## In the Heart of St. Louis Industrial and Wholesale Districts



Compare the FACTS of our service point by point with those of any other warehouse before you buy warehousing service in St. Louis.

Warehouse facilities, switching, location, protection, special space, cleanliness, switchboard, order dept., stock control, and a dozen other features are the reasons for our reputation and growth - - -

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Pool Car Distribution Private Switch



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including freedom from man-made or  
natural obstacles, space for 10,000 ft.  
runways with additional clearance of  
450 ft. beyond, and the advantage of  
quick accessibility to metropolitan centers.  
The distance from these centers is  
one big drawback to existing San Francisco-Eastbay airports.

Admiral Greenslade, according to Mr.  
Parr, has expressed keen interest in the  
project. It has also had attention from  
California Highway Commissioner  
Charles H. Purcell.

The recently formed Twelve Counties  
Planning Committee has brought into  
the picture the counties of Marin, Napa,  
Sonoma, Solano, Contra Costa, Alameda,  
Santa Clara, Monterey, Sacramento, San  
Joaquin, San Francisco and San Mateo.  
All of these sections would expect to be  
benefited by a large commercial airbase  
on San Francisco Bay.

Mr. Parr says his project would call  
for "proper overhead and underpass  
highway connections to handle motor  
traffic as expeditiously as at a ball  
game."

Three points stressed by Mr. Parr in  
connection with his plan are: "1. There is  
a decisive need for an airbase in the Bay.  
2. The site proposed for the Golden Gate  
International Exposition is the most logical  
location. 3. We are not necessarily  
regarding this as a post-war project. It  
is possible that it will be required at a  
much earlier date. Few critical materials  
would be required." Mr. Parr says:  
"Dredger equipment is available. It is  
not only possible but it might be logical  
to develop it during the present  
emergency."

Financing of this, as of any similar  
project, would be from Federal funds.  
Mr. Parr cites the financing of the  
Washington national airport as an example.

Trucking experts here favor air development.  
They do not see it as competitive but as correlative with truck  
freight operations.

Roy B. Thompson, secretary-manager,  
Truck Owners' Assn. of California, says,  
"The freight end of air transport will  
need and want trucks, which must tie in

to handle distribution efficiently. There  
seems to be no question that air freight  
developments here must co-ordinate with  
trucking."

Joseph Robertson, Robertson Drayage  
Co., finds it "only natural, if freight is  
being moved by plane, that shortline  
trucks will be needed in conjunction with  
the service." Feeding by truck will be  
essential, Mr. Robertson says, "no matter  
where the airports are located."

Since both sides of the Bay are well  
served by carriers, there will be no dearth  
of feeder truck lines immediately available  
for any plane service centered on  
San Francisco Bay." Mr. Robertson  
points out that air freight is no longer a  
vision but a fact. The big hurdle so far,  
however, is excessive cost. "Uncle Sam is  
flying a terrific volume of freight. But  
Uncle Sam is paying the bill."

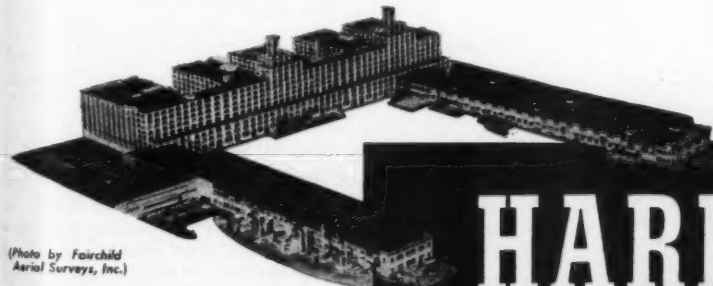
Major Ernie Smith agrees that the  
"present cost of flying freight is prohibitive"  
for many cargoes, but he anticipates that  
before very long not only 80 per cent of the  
people who travel but "all the money cargoes,  
all first-class



## THE WAR ISN'T OVER!

We have done well so far in carrying the war to the enemy. North Africa. Sicily. The Solomons. But let no one be deceived. In football terms, we have had a few "first downs," but the winning "touchdowns" are still to come. It will take everything our "team" has to win and win brilliantly.

So, let's remain on the alert. Let's buy war-bonds and more bonds. Let's put the bee on the black markets . . . in food, gasoline, or anything else. Let's continue to give blood-plasma to the Red Cross, fats to the butcher for munitions, tinned cans to the collection there on the sidewalk. Eternal vigilance is the price of liberty, so let's assume that "we have not yet begun to fight." Victory will come sooner if we remind ourselves that the war isn't over!



(Photo by Fairchild Aerial Surveys, Inc.)

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R. B. M. BURKE, Vice-President

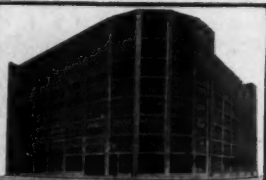
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Newark, Elizabeth  
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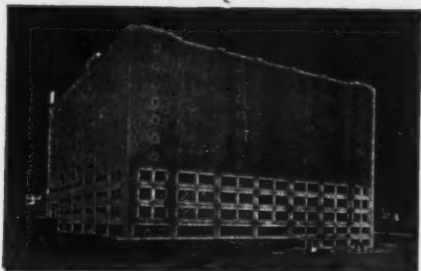
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100 CAR SIDINGS  
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Capacity 50 cars daily. Pool car distribution.

One of THE CHAIN OF TIDEWATER TERMINALS and Inland Warehouses

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**Knowlton Warehouse Co.**

50 Mississippi Street, Buffalo, N. Y.

**POOL CAR DISTRIBUTION  
MERCHANDISE STORAGE  
PRIVATE SIDING**

mail and much parcel post will be transported by plane."

Trucking leaders, harassed by wartime problems, have not as yet actively entered into planning for co-ordination of their activities with the now imminent increase of air freight movements in this region, but they point out that, just as the three common carrier truck lines whose routes take them through Mills Field territory serve that airline, so the proposed new San Francisco Bay air bases will be served by at least six major carriers who can immediately tie in their operations with an air freight set-up that may develop. They are carriers, in the words of one of them, "equipped to handle anything from a needle to an anchor."

"The emergence of air freight and the part to be played by carriers in the trucking field is a matter that will face us just as soon as the war is over," in the opinion of Oscar R. Dellie, sales manager, Peeters & Sons Van & Storage, San Francisco.

"This is true of the household goods moving industry as inevitably as of branches of the industry in the general commercial field. It is possible to say now that air freight in the movement of household furniture is distinctly a probability, and may become an important factor, but how soon this probability can develop into actuality and to what extent depends on the rates it will be possible to charge.

"If rates are competitive with motor van or railroad, there is no doubt that air freight will become a factor in the household goods field. If rates are not in line, use of air will remain a luxury for the wealthy, except perhaps in the transportation of goods between United States West Coast and the Pacific Islands and Asia, and the East Coast and Europe.

"There is no doubt that air is the ideal way to ship household goods, especially to foreign countries. One problem is rehandling. You can't load a plane at the owner's door, as you can a motor van. Rehandling means extra cost. If air freight is to thrive we must keep down the costs, keep them in line with other

forms of transportation. There will be so many planes available at the end of the war and so many potential air carriers thus available, that competition may take care of that angle."

Mr. Dellie, like everyone in the common and contract carrier field, with whom the matter has been discussed, believes that air freight is a fact, not a vision. It has been proved by what the Government is doing in the transport of war materials. How rapidly it may be adapted to the various phases of civilian freight movements depends on factors still to be determined.

Motor transport and storage men are taking a leading part in the newest move of the California Planners who hope to make the San Francisco Bay Area a world port for domestic and foreign air transport. They have a Northern California Citizens' Committee. Fred D. Parr, president, Parr Terminal Co., its chairman, called together, August 31, a meeting of leading engineers, businessmen, civic and professional leaders to discuss a master plan for the Northern California area and particularly for an agency which can co-ordinate plans of all interested parties and groups to the end that an orderly and well planned development may take place.

One of the leading men on the committee is Chester Bekins, Bekins Van & Storage Co.

**Army Shipping**

Gen. George C. Marshall, Chief of Staff, U. S. Army, in his Biennial Report to the Secretary of War, for the period ending June 30, 1943, made the following statement with respect to the volume of shipping required by the Army:

"The tremendous amount of shipping required for a modern army is not generally understood. For instance, in computing initial shipping requirements an average of six measurement tons of cargo space per man is required. Maintenance requirements average one measurement ton per month."

## Post-War Aviation

(Continued from page 52)

port beautification and expansion. Only 240 trunkline stops are now served by the air lines, yet there are 3,008 airports (Class I-III), not including new military fields, and some 3,464 cities not yet served by air lines that will demand attention in the terminal problem. Factory landing strips for the contract and industrial flyer create an entirely new problem. In addition, there are over 350,000 miles of new route mileage applications pending before the Civil Aeronautics Board.

### Operations . . .

Material increase in load factors and plane utilization, as well as improvement in service, can be obtained by proper scheduling of planes in order to attain more frequency (by use of smaller units) and better turn-around utility. Speeds should be held to economic levels. Movable bulkheads in cabins will permit needed flexibility. In cargo operations, relaxing gross load limits will reduce costs. Post-war application of Radar should assist in performance and saving in insurance.

From an operator's viewpoint, the above influences will have considerable bearing on how extensively we can expand commercially. From a traffic viewpoint, there are many unsolved equations. Before discussing the known traffic potential, it would be well to explore the forces upon which only extensive research and time can give us

answers. While the airplane can be reasonably expected to penetrate existing, domestic utility traffic to the extent of nearly 1 per cent, there is a substantial "unborn" traffic which would adjust, mixed with air transport utility, will bring into existence. Some of these factors are discussed below.

### Unborn Traffic . . .

While political whims change like the winds, the mass thinking of nations will, in itself, exert considerable influence on trade. Our ability to barter, the outcome of peace table conferences, air rights, and military objectives, will be the key to the flow of millions of ton-miles that we cannot now evaluate.

Experience has shown that there is always a swing to the romantic and the new creation, without regard to economy and basic principles. The airplane will capture the "cream traffic" and it will be the "bellwether" that will bring much prestige traffic into its fold. World leaders will utilize this field of transportation and this influence will be great on the general flow of goods and people.

Competition between nations to maintain air supremacy, to reach markets first and to bear influence on trade in general, as well as international relationships, will exert considerable pressure on moving goods by air. Such flow is not often based on economy, but on other factors. It is certain that efforts to utilize the 150,000 miles of new U. S. military routes, the protection of our thirty billion dollar annual aircraft production (1944) facility, and the bolstering of Pan American trade in the post-

war will generate tremendous amounts of air traffic.

### Global Traffic . . .

Much discussed, has been global flying, but its influence as a traffic stimulant has been slighted. New neighbors, new routes, inland cities now becoming international ports, and the shortening of mileages between producer and consumer all create traffic now dormant. The Eskimo who never saw an automobile in his life now uses a radio brought in by air. The native of any jungle, gathering rubber as a livelihood, will insist upon an air conditioning unit in his hut. The 90 per cent of the Earth's population now living in the northern hemisphere will see a migration to the vast area, rich in resources, of the southern hemisphere.

Like the automobile-boomed suburbs, the airplane may promote the "gentleman farmer" idea by extending commuting distances to 200 miles. The Defense Plant Corp. owning 13,000 of our 90,000 manufacturing plants will cause widespread shifts in production areas, raw material and consumer traffic. Labor shifts of wholesale character resulting from war create new traffic requirements.

Only a small proportion of our globe is thickly enough populated to support large volume traffic arteries. Now that we have the airplane to reckon with, capital can scarcely be mustered to spend \$70,000 per mile cost and \$2,000 per mile upkeep to build a railroad; or, \$100,000 cost and \$800 per mile upkeep for a highway; or even \$60,000,000 for luxury liners like the Normandie to tap this

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667 Washington St.

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lean traffic in widely scattered, sparsely settled areas. Through the inexpensive "trial and error" method, the airplane will generate much of this new traffic which surface forms dare not attack.

#### Surface Vehicles . . .

Surface vehicles must still operate under many uneconomic obstacles in addition to the average 15 per cent greater distance over air. John Budd recently pointed out the shining example of a 105 lb. package traveling from Hartford to Bogota at \$.15 per ton mile, wherein it would actually cost \$1.66 more via the troublesome rail-water route. Here is what the airshipment bypasses: 1. Packing charges for export and elimination of tare. 2. Inland rail charges. 3. Lighterage charges at one or both ends. 4. Customs savings on lighter weights. 5. Interest in transit time. 6. Marine insurance premiums. 7. Consular fees. 8. Port and terminal charges. 9. International boundary delays.

#### Timed Traffic . . .

What the element of time alone will extract is still an unknown. When one can travel to Europe for \$100 in 15 hours, or on a world vacation in two weeks, travel, not now flowing, will be stimulated extensively. Practically any city in the world can be reached within a day's time in the post-war period.

A new element in time economy is what might be called "round trip" economy. It is often asked, "why speed up our ships faster than needed for an overnight journey between the Atlantic

and Pacific Coasts?" Sound logical, but soon the Los Angeles merchant will tell his customer at 3 P. M., today that he will air mail the order from a New York factory and deliver it to the customer's home tomorrow morning, just as he would now if he had the merchandise in stock. This round trip overnight economy will come to play in future traffic development when merchants find they can reduce the cost of carrying large stocks. It will be a little tough on the middleman who must yield to a producer-retailer alliance which time-in-transit will create.

#### Deferred Traffic . . .

Cheaper rates can be provided, and higher load factors maintained by the institution of deferred traffic. With high priced transportation this is a most logical development. If the airlines had adopted this procedure before the war, an average of 1837 lb. of cargo space would have been available for each trip in addition to the 166 lb. of express the trip actually carried. This would have meant that cargoes carried on our air-fleet would have been around 57 million ton-miles instead of 5.2 million, and we would not be shamed by the record of two unsubsidized private carriers south of our border who each carried more freight than all the U. S. lines put together. No longer should there be a ceiling of 68 per cent load factor in this country, which is a waste that will undoubtedly exist if some plan such as deferred freight is not adopted. Uneven traffic flow causes this lower average load factor. Air express records show, for instance, that 1.75 lb. of express

moved westward for each pound moved east.

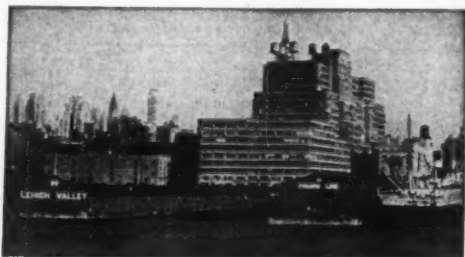
#### New Products . . .

The influence of war and science on the rapid development of concentrates promises to give the airplane a commodity never before existing. Dehydrated food saves up to 90 per cent in weight and volume. Instead of packing garbage around the country, food is now condensed, retaining all vitamins to the extent that a present day Western Air Liner could supply all England in one plane load with enough vitamins to last a considerable period. "V" mail is an outstanding example, saving 1/65th of normal mail weight and 98 per cent in space. Twenty-five million letters have already been speeded to destinations by this method.

#### Shuttle Service . . .

It appears that shuttle service (street-car frequency) is one of the biggest factors on the horizon for future traffic development. Rather than "big-unit" ourselves into bankruptcy, (thorn in the neck of the railroads) much investigation should be made of the low economy and increased traffic dividends resulting from smaller units scheduled more frequently. It is a cinch that a man will travel or ship by air if he knows a plane leaves every hour on the hour. The main advantage of the airplane is the time element, but many forget that only a portion of the time element is time-in-transit. The other portion, which often figures just as importantly, is the over-all-time from the moment of incentive

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Merchandise & Household Goods  
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until completion. In cargo work, we call it "door-to-door" time, but to this, as in travel, the time when the package or person is ready to roll must be considered.

Much traffic does not move today, even with modern facilities to draw upon, because of preservation problems. The advent of high altitude flying, wherein natural refrigeration can be utilized, should not only broaden markets for presently moving perishables but instigate many new products for consumption outlets.

#### Cargo Shipments . . .

The known domestic traffic flow can be more easily estimated than the "unborn" potential analyzed above. Calculations would indicate that out of the pre-Pearl Harbor utility type of inter-city traffic flowing in the U. S. annually, amounting to approximately 577 billion ton-miles (including passengers), the airlines stand a reasonable chance of capturing four billion ton-miles during the 10 years following the war. This is less than one per cent of the total, and this figure should relax the fears of the thirty-two billion dollar railroad industry.

However small a portion of the total this might seem, it means, nevertheless, an over-all increase of about 40 times in air transport's past normal performance. So, in calculating future expansion, multiply by 40 what the industry is doing now, and add it to your estimate of unborn traffic, plus international traffic.

The form of this traffic will change considerably. Translating ton-miles into types of traffic would mean that by 1955 our domestic traffic should multiply our present annual totals something like this: Mail (all-up policy), 7 times. Passengers, 8 times. Cargo, 1,000 times.

It is easy to see that the real percentage-wise increase will be in the cargo field. However, due to the extraordinary underdevelopment of air cargo, this figure is not so startling.

#### Costs . . .

A word or two on costs. In order to achieve the above estimate of traffic, it is necessary to delve into what the shipper or traveler will be expected to pay for air service. Table I gives a reasonable premise to follow and compare with present rates. Conclusions as to post-war rates have been arrived at after a comprehensive investigation into pres-

ent and future aircraft possibilities. The presentation in Table 1 does not take into account the approximate 10 per cent reduction in passenger fares and 12½ per cent reduction in express rates recently made by the air carriers.

#### Air Penetration . . .

In order to penetrate the present flow of ground traffic, one must analyze not only the type of traffic and mode of conveyance, but the length of haul, as well as the concentration and value of the shipment. In order to provide an insight, as to how far the airplane might go in capturing presently flowing ground traffic, Table II will be helpful.

The history of new forms of transportation, and the way traffic swings from one to another is interesting. The motorcar, born in World War I increasing 23 times by World War II, because of its excellence in door-to-door service, coupled with flexibility in the short haul field, was able to divert much business in a comparatively short time. These trends are of interest in analyzing the problem ahead of the airplane. One method of measuring this penetration would show the following results: Trucks from freight, 16 per cent; pipe lines from freight, 15 per cent; bus from rail, 85

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Most Economical Warehouse and Distribution Services  
 VIA WATER—RAIL—TRUCK ARE AVAILABLE THROUGH  
 Cleveland's Largest Cold and General Merchandise Warehouse



per cent; air lines from pullman, 13 per cent; air lines from express, 6 per cent.

#### Foreign Traffic . . .

As indicated, foreign air traffic is nearly impossible to estimate with reasonable accuracy. At this time, however, a sample of what may be expected can be portrayed by applying the same principles of the above to the North Atlantic passenger business. Based on Pan American Airlines figures and correlated with Civil Aeronautic Board surveys of traffic flow between population areas a reasonable expectation of U. S. European traffic per year would be 219,000 passengers. Now, applying domestic estimate of relative types of traffic, the total mail, cargo and passenger business might easily reach 425 million ton-miles a year.

#### Future Service . . .

It appears that experience of other forms of transportation will eventually be followed by this youthful industry in that economies to both operator and to the public will require air transportation to establish class of rates in keeping with service rendered.

While the above analysis is but one opinion, and by no means the last word, it perhaps will serve as a stimulant for further study or discussion.

**Invest in the Future  
Buy War Bonds**

## Post-War Truck Expected to be Stronger, Lighter, More Economical, Engineers Say

Post war motorists may well be driving in super-streamlined, engine-in-the-rear, tear drop design vehicles, but there is one thing will look familiar to them on the road—tomorrow's truck. In appearance, at least, the truck of the future will differ but little from today's designs, according to engineers of Mack Trucks, Inc.

Trucks are designed to carry a given load within a definite space, and a cube is still the best bet when it comes to getting the most merchandise within the smallest area, it is said. This fact alone, it is believed, will keep truck bodies within the confines of conventional design, no matter how far afield automobile lines may stray.

However, although the truck body is not ex-

pected to change much in appearance, Mack engineers foresee a great change in the materials that form the body. Magnesium, aluminum, high grade secondary aluminum and a host of other lightweight materials are going to cut truck weight and allow for that much more weight in payload.

Major changes are expected to take place in the engine. Signs point toward a lighter engine with greater horsepower in proportion to weight as compared to present engines. High octane gasoline, used now exclusively for aircraft, is likely to play a major role in the engine development.

The post war truck is going to be stronger, lighter and therefore more economical to operate, it is predicted, but it still will look like a truck.

#### NEW DEHYDRATOR

A new dehydration plant with capacity for reducing 75,000 lb. of green material to 20,000 lb. of finished product daily has been opened at Pomona, Cal., by Anthony Lazaros, who has operated similar plants at New York and Los Angeles for the past 18 years. The Pomona plant will operate in three shifts and will handle parsley, celery, mint, mint oil and carrots. (Herr)

#### LONG SHOVELS

The taller the man, the longer the shovel handle. Thirty per cent of the square-mouth shovels issued to Canadian National Railways trackmen this year have handles 28 in. long. These are for the tall chaps. The balance of the shovels will be two inches shorter. Canadian National engineers say the extra two inches of the shovel handle for tall men reduces labor effort and defers fatigue.

CLEVELAND OHIO

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Delivery facilities include . . .  
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G. A. WRIGHT, Pres. &amp; Mgr.

**WRIGHT TRANSFER & STORAGE CO.**  
126 OAK ST.

Est. 1904

**Merchandise—Household Goods**Wright Service to Meet Your  
Requirements

Member of N.F.W.A.—A.V.L.—O.F.W.A.



## COLUMBUS, OHIO

Member of O.W.A.

**COLUMBUS WAREHOUSES, INC.**

A COMPLETE MERCHANDISE DISTRIBUTION WAREHOUSE

MOST CENTRAL WAREHOUSE—8 BLOCKS OF

CENTER DOWNTOWN DISTRICT

POOL CAR DISTRIBUTION

PRIVATE SIDING AND SWITCH—N. Y. CENTRAL LINES

228 West Broad St., Columbus, Ohio



## SPRINGFIELD, OHIO

MEMBER

**WAGNERS SERVICE, INC.**

Pennsylvania Railroad and Lowry Ave.

A warehouse service that embodies every  
modern facility for the storage and distribu-  
tion of Household Goods and Merchandise—  
Motor Freight Service—Door to door delivery  
at Dayton, Springfield and Columbus daily.

Member of A. W. A.—O. W. A.



## COLUMBUS, OHIO

Consign Your Household Goods Shipments to

**DAN EDWARDS at COLUMBUS**Packing—Shipping—Storage—Local and Long Distance Moving—Steel  
and Concrete Warehouse—Private Siding**EDWARDS TRANSFER AND STORAGE CO.**  
430 North High St., Columbus, OhioMember—National Furniture Warehousemen's Association  
Agent—Allied Van Lines, Inc.

## COLUMBUS, OHIO

**THE MERCHANDISE WAREHOUSE CO.**

370 West Broad St.

Complete service for

MERCHANDISE STORAGE AND DISTRIBUTION

Private Siding NYC and Big Four

14 Car Capacity

Pool Car Distribution A.D.T. Service

Centrally Located Modern Facilities

Members: A.C.W.—O.W.A.



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**The NEILSTON STORAGE CO.**

260 EAST NAGHTEN ST., COLUMBUS 15

Modern warehouse for merchandise—Low  
insurance—Central location in jobbing dis-  
trict—Private railroad siding—Pool cars  
distributed.

Member of O.W.A.



## TOLEDO, OHIO

**Merchants and Manufacturers Warehouse Co.**

Office and Main Warehouse: 15-23 So. Ontario St.

BRANCH WAREHOUSE: 2131-51 Smead Ave.

Center of Jobbing District

Sprinklered Buildings—200,000 square feet Dry Storage—70,000  
cubic feet Coal Storage—Private Sidings—Nickel Plate Road,  
New York Central—Free Switching. Merchandise Storage—Pool Car  
—Distribution—Negotiable Receipts—Transit Storage Privileges—  
Low Insurance Rate—City Delivery System.**GREAT LAKES TERMINAL WAREHOUSE CO.**

321-359 MORRIS ST.

TOLEDO, OHIO

COMPLETE WAREHOUSE FACILITIES

**Today's Trucking  
Problems Unique**

(Continued from page 53)

in conserving the resources of motor car-  
riers generally.Joint action plans, entered into by  
many large groups of carriers who pool  
facilities and services to eliminate waste  
effort and increase efficiency of their  
operations, and the Joint Information  
Offices set up in scores of cities are also  
contributing their "bit" in no small way  
toward keeping trucks rolling with a  
minimum of deadhead mileage.The Army Transportation Corps, on  
the job day and night to help civilian  
truckers solve their problems, and ex-  
emplified admirably by its activities  
under Col. Dan C. Hardt, in the Chicago  
area, has been another important factor  
in promoting efficient motor carrier per-  
formance."It is, I believe, the first time in our  
history," Mr. Mullady says, "that the  
military forces have given real coopera-  
tion in a civilian enterprise. They have  
been doing a wonderful job for us, notonly in speeding up loading and unload-  
ing at army installations, but at the  
docks of every industry concerned in war  
production as well. They have helped us  
locate replacement parts for our worn  
out engines; encouraged interline trans-  
fers; negotiated with local authorities  
when drivers ran foul of traffic laws;  
ironed out difficulties caused by state  
trade barriers and extended their good  
offices in innumerable other situations  
that would otherwise have hindered  
smooth performance on our part. Some  
of the plans first put into effect in the  
Chicago area have furnished the model  
which other big transportation centers  
later adopted."It's a splendid demonstration of de-  
mocracy in action. Under dictator gov-  
ernments it might be, possibly is being,  
accomplished. But in what a different  
way and spirit!"However, if the nation's motor trans-  
portation system is to continue carrying  
on at its job, relief must be obtained  
immediately from the burdens that now  
hamper its action and threaten its ex-  
istence, Mr. Mullady maintains."We are pressing forward with all the  
energy we can summon to our task and  
are, I feel, doing a creditable job. But  
how long can we last if our manpower  
continues to be siphoned off and if our  
worn out trucks are not replaced?""The War Manpower Commission has  
declared trucking to be an essential in-  
dustry. Yet, despite this, local draft  
boards disregard the directives and call  
up our employes for military service. In  
my own concern 150 men have left us  
to serve at the front. We do not com-  
plain except that local boards have been  
lax in showing proper consideration in  
the selection of men. With strange per-  
versity they have insisted on taking  
irreplaceable key men and passing up  
others not so essential."Truckers," he says "have met this  
manpower drain, as have other indus-  
tries, by hiring over-age men for the  
heavier tasks and women wherever they  
fit in. Training courses have been insti-  
tuted at every large truck terminal and  
from non-essential industries mechanics  
have been obtained to handle vital repair  
work.

"But, admittedly, these new recruits are not highly skilled. They lack the valuable qualities long experience confers and the loss of efficiency entailed by our enforced personnel turnover has become a cost factor of increasing concern to all truck operators.

"Tires, too," he says, "have contributed to rising costs of operation. They are being conserved to the utmost by every trucker. But today's tires are not of pre-war quality, and have to be replaced oftener with resultant greater expense."

As to the gravity of the situation caused by the difficulty of getting repair and replacement parts, he knows instances of trucks being out of service for weeks because some particular casting could not be obtained. To compensate for this loss of equipment other trucks, he points out have to be more heavily loaded. This, in turn, places undue strain on already weakened equipment, creates traffic hazards and, when breakdowns eventually occur, piles up expenses that would never occur under normal conditions.

The Administration's labor policies, Mr. Mullady believes, have also been a serious handicap.

"The War Labor Board has granted wage increases, many of them retroactive for months," he says, "but when operators have sought rate increases to meet those added operating costs the

Office of Price Administration has been adamant in its refusal.

"That is one of the most serious problems we face. We are being asked to handle more traffic than ever before and we are doing it. But on every hand we are beset with sharply rising maintenance and labor costs that we cannot check or control. And yet we are refused any substantial rate relief.

"Many carriers are operating on dangerously slim profit margins or actually showing losses. Unlike other industries, ours does not have the large reserve that would enable us to tide over a prolonged period of profitless operations. One inescapable conclusion remains. If the motor transportation industry is to continue reasonably healthy, either costs must come down or rates must go up."

## Government Control Of Warehouses

(Continued from page 69)

of temporary construction and will be torn down when no longer needed.

Many new products will make their appearance when the war is over. There will be amazing developments in air transportation, in electronics, in chemistry and in other fields. New products and services will absorb a large part of the space erected for war purposes and furnish employment for thousands of workers. Moreover, these post-war

changes seem likely to give the warehouse industry many new materials requiring storage. Consequently, the threat of competition from government warehouses does not assume nearly the importance given to it by those who seek to frighten us into asking the government to take over our industry.

We are told that regulation is the panacea that will cure all our ills. But the railroads do not appear to be greatly benefited by government control. In fact many of them were operated by receivers for years while under Federal control and only in the last few years were they able to show a profit from operation. The head of one of our large steamship lines stated recently that nothing would please him better than to be allowed to operate his ships without government control. Many of the truckmen who do business under ICC regulations are very unhappy over their situation and long for their former freedom.

Members of the warehousing fraternity would find themselves in a most unhappy situation if they were operating under Federal control, while other unregulated facilities such as railroad terminals and piers, steamship piers, barge canal terminals, Foreign Trade Zone City and State owned piers and warehouses, and space operated by trucking concerns, were allowed to engage in storage practices without any supervision whatever as to rates or conditions.

(Continued on page 120)

### TOLEDO, OHIO

#### "QUICK SHIPPERS"

## TOLEDO TERMINAL WAREHOUSE, INC.

128-138 VANCE STREET, TOLEDO, OHIO

Merchandise storage . . . Pool car distribution . . .  
Fireproof . . . Private siding Nickel Plate Road  
Free switching . . . Negotiable receipts . . .  
Transit storage arrangements . . .  
Motor truck service . . . Located in Jobbing District . . .



MEMBERS: American Warehousemen's Association  
Ohio Warehousemen's Association  
Toledo Chamber of Commerce

Represented by ALLIED DISTRIBUTION INC. CHICAGO  
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### TULSA, OKLA.

## JOE HODGES FIREPROOF WAREHOUSE

Merchandise Storage—Pool Car Distribution

Located in Center of Tulsa Wholesale District

Member: A.W.A., N.F.W.A. and American Chain of Warehouses

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Storage—Moving—  
Packing—Shipping of  
Household Effects and  
Works of Art—Silver  
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Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.  
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President Vice Pres. Secy.-Treas.

THE WM.  
EST. 1887

## HERBERT & SON CO.

Incorporated 1922



CRATING—PACKING—MOVING

ALLIED  
VANS

STORAGE

N.F.W.A.

Main Office: 646-652 Market St. — Branch Center and Elm St.



### OKLAHOMA CITY, OKLA.

Established 1889

## O. K. TRANSFER & STORAGE CO.



GENERAL WAREHOUSING AND DISTRIBUTION

### PORTLAND, ORE.

H. M. CLARK, Pres.

## HOLMAN TRANSFER COMPANY STORAGE DISTRIBUTION

SINCE 1864

1306 N.W. Hoyt St., Portland 9  
A.W.A.—O.S.W.A.

## PORTLAND, ORE.



J. H. CUMMINGS, Pres.  
**MERCHANDISE, STORAGE & WAREHOUSING**  
**Northwestern Transfer Co.**  
*General Forwarding Agents*  
 SPECIAL ATTENTION GIVEN TO POOL CARS  
*Our private siding is served by all railroads*  
**1504 N.W. Johnson St., Portland, Oregon**  
 Estab. 1888

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**OREGON TRANSFER COMPANY**

Established 1868  
 1238 Northwest Glisan Street Portland 9, Oregon  
**U. S. BONDED and PUBLIC WAREHOUSES**  
 Merchandise Storage and Distribution  
 Lowest Insurance Rates—Sprinkler Equipped  
 Member A. W. A.  
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COVER THE NORTHWEST  
 THROUGH

**RUDIE WILHELM WHSE. CO., INC.**

U. S. Bonded—Concrete Building—A. D. T. Sprinkler System  
 Complete Facilities for Storage and Distribution  
 of All Commodities

Free Switching from All Railroads Portland's Lowest Insurance Rates  
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## ALLENTOWN, PA.



Only Large Fire-Retardant Warehouse in  
 Lehigh Valley

**DIEHL STORAGE COMPANY**

128-132 N. 8th ST.  
 HHG.—STORAGE—MDSE.  
 MOVING—CRATING—SHIPPING  
 F. WILLARD WOLFE, PRES. & GEN. MGR.

## HARRISBURG, PA.

Inc. 1902

**HARRISBURG STORAGE CO.**

Fire Retardant & Fireproof Warehouses  
 P.R.R. Sidings

Pool Car & Delivery Service

Represented by  
 THE AMERICAN CHAIN OF WAREHOUSES, INC.

## HARRISBURG, PA.

**KEYSTONE WAREHOUSE**

GENERAL MERCHANDISE STORAGE  
 POOL CARS DISTRIBUTED  
 BRICK BUILDING—LOW INSURANCE  
 STORE DOOR DELIVERY ARRANGED FOR  
 PENNA. R. R. SIDING  
 OPERATED BY HARRISBURG WAREHOUSE CO.

## HAZLETON, PA.

Est. 1915

**KARN'S STORAGE, INC.**

MERCHANDISE WAREHOUSE L.V.R.R. SIDING  
 Storage in Transit Pool Car Distribution  
 Packing — Shipping — Hauling  
 Fireproof Furniture Storage

Members: Mayflower W.A.—P.F.W.A.—P.W.A.

## LANCASTER, PA.

**LANCASTER STORAGE CO.**

LANCASTER, PA.

Merchandise Storage, Household Goods, Transferring,  
 Forwarding  
 Manufacturers' Distributors, Carload Distribution, Local  
 and Long Distance Moving  
 Member of May.W.A.

## PHILADELPHIA, PA.

Est. over 50 years.

Pool Car Distribution a Specialty

**FENTON STORAGE CO.**

Absolutely Fireproof 46th and Girard Ave.  
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 P. R.R. Siding  
 Storage, moving and distribution of household goods and merchandise

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**Fidelity—20th Century Storage Warehouses**

General Offices—1811 Market St., Philadelphia 3  
 Agent for Allied Van Lines, Inc.

Bus type vans for speedy delivery anywhere. We distribute  
 pool cars of household goods. Prompt remittance.

Assoc. N. F. W. A., Can. S. & T., P. F. W. A.

## PHILADELPHIA, PA.

Established 1865

**GALLAGHER'S WAREHOUSES**

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 Merchandise Storage Storage in Transit  
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 Represented by Associated Warehouses, Inc.  
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 5909 TORRESDALE AVE. • PHILADELPHIA



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 Long Distance Moving

# WARTIME WAREHOUSING in Philadelphia

Over 1,000,000 square feet  
 of space in 22 modern warehouses, with every trans-  
 portation connection and the most modern handling  
 facilities. Large modern fleet for store-door service.

A complete set-up to meet and improve your Phila-  
 delphia storage and distribution problems, with  
 war-time economy. Full details on request.

**PENNSYLVANIA WAREHOUSING  
 & SAFE DEPOSIT CO.**

4th and Chestnut Streets • Philadelphia 6

WARREN T. JUSTICE, President

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## PENNSYLVANIA



# 13 MODERN WAREHOUSES



## -serving PHILADELPHIA AND VICINITY with Economy and Dispatch.

Strategically located throughout Philadelphia, they provide more than 68 acres of excellent storage space.

Each building is equipped with every convenience, designed for the safe, prompt and economical handling of goods of every kind. All earn low insurance

rates. Special provision is made for the storage of household goods.

Served by both Pennsylvania Railroad and the Reading Company. Convenient to the big piers. Completely equipped pool car department is maintained.

*Write for Particulars*

Represented by  
**DISTRIBUTION SERVICE, Inc.**

An Association  
of Good Warehouses Located at  
Strategic Distribution Centers

## TERMINAL WAREHOUSE COMPANY

DELAWARE AVENUE AND FAIRMOUNT • PHILADELPHIA



Members: A.W.A.



N.W.A., Pa.F.W.A.



2 Broadway, NEW YORK CITY  
Phone: Bowling Green 9-0906

625 Third St., SAN FRANCISCO  
Phone: Sutter 3461

219 E. North Water St., CHICAGO  
Phone: Sup. 7180

## Fire Protection Of Cargo Terminals

(Continued from page 58)

ning of each heating season. Any new installations or repairs of electrical wiring or appliances should conform to the National Electrical Code or the local electrical code.

When it comes to fire protection equipment, the same difficulty in obtaining new appliances will be found as in buying truck parts or tires. It takes a high priority rating to acquire new fire appliances, higher than most operators can command. Equipment for temporary service, made of substitute materials and approved under "Emergency Alternate Specifications," is becoming available, but the approval will be withdrawn, "after victory." Therefore, existing equipment should be given the very best care.

For unlined linen hose, this means that standpipe valves must be inspected frequently to make certain they are closed and do not permit water to leak into the hose, which deteriorates quickly when damp. Every six months or so, hose kept in racks should be relaid so the turns occur in different places.

Sprinkler systems must be carefully supervised and all safeguards taken to prevent freezing of the pipes or other damage.

Extinguishers should be inspected

often to make certain they are filled, and that the nozzle orifice has not become clogged. In recharging extinguishers, instructions of the manufacturers should be followed to the letter, and only recharging materials or replacement parts furnished by the manufacturers should be used.

Regular terminal employees should be thoroughly familiar with all fire protection equipment and instructed in its use. They should know how to sound fire alarms in order to bring the fire department to the scene of a fire without delay. A regular program of instruction for workers in matters of fire safety will pay good dividends.

There have been some disastrous terminal fires that emphasize the necessity for taking precautions against fire.

A mile outside of Burlington, N. C., there was a large unsprinklered warehouse of brick construction that was used as a terminal. Fire occurred early on the morning of Dec. 20, last year, when an oil stove "exploded." By the time the fire department arrived the roof was already falling in. There was only one fire hydrant available for use and little could be done to check the fire. Twenty trucks and trailers loaded with merchandise were destroyed. The damage was estimated at half a million dollars.

At Carbondale, Ill., there was a huge unsprinklered single-story brick warehouse with joist on steel-trussed roof.

The building, 400 ft. long by 200 ft. wide, formed a single fire area. Eighteen trucks, valued at \$200,000, were lined up at the loading dock which communicated with the storage space through mutually operated steel doors that were open. Fire started from some undetermined cause and spread too rapidly to permit the use of fire extinguishers or standpipe hose by employees. Losses were estimated at approximately \$300,000 on the building and \$440,000 or more on the contents. This terminal, occupied by the Kroger Grocery & Bakery Company, served 16 retail outlets located in four states.

Fire sometimes comes from outside the premises. In Portland, Ore., a collision between a gasoline tank truck and a switching locomotive caused a fire which spread to a terminal and warehouse where grocery products were handled. The property involved was a two-story concrete building with a wooden joist interior. The 10,000 sq. ft. interior was not divided by fire walls, vertical openings were unprotected, and sprinklers were lacking. Burning gasoline from the tank truck flowed into the basement of the building. The total loss involved in the fire was estimated at \$461,000, of which about \$400,000 represents the damage to the terminal, warehouse, and contents.

These large loss fires are the ones most people hear about. There are a great number of small fires, however, that never make the headlines because they

are put out before they spread or cause any considerable damage.

On the concrete apron of a loading dock a mechanic was cleaning a hydraulic jack with gasoline. The gasoline spilled on the floor, vaporized, and was ignited by a spark from the exhaust of a truck. The mechanic's clothing caught fire. A companion grabbed him and tried to smother the flames with his hands, but, failing this, took an extinguisher from a truck and put out the flames with a few squirts. The extinguisher was the vaporizing liquid type commonly carried on motor vehicles.

In another case, a truck collided with another vehicle being parked in the terminal yard, waiting for loading space. The overhang of the truck smashed into the hood of the second vehicle, breaking the fuel line. Gasoline flowed down on the hot exhaust pipe of the truck and caught fire. One driver used a 2½ gallon foam extinguisher to attack the fire and in two minutes he had extinguished the flames which spread over an area of about 20 ft. under the two vehicles.

## Have You Checked These Lately?

1. Heating equipment should be inspected and repaired at the beginning of each heating season.
2. Fire protection equipment should be given special care. Replacements today are almost impossible.
3. Standpipe valves should be inspected frequently to make certain that they do not permit water to leak into unlined linen hose which deteriorates quickly when damp.
4. Hoses kept in racks should be relayed every six months so the turns occur in different

places. This is especially important today.

5. Sprinkler systems should be carefully supervised to prevent freezing of the pipes or other damage.

6. Extinguishers should be inspected often to make certain they are filled, and that the nozzle orifice has not become clogged. In recharging extinguishers, the manufacturer's instructions should be followed to the letter.

7. Employees should be thoroughly familiar with all fire protection equipment and instructed in its use.

### NEW GLASS PLANT

Firing of the first furnace on July 1 marked the beginning of production by the Kerr Glass Co. at its new factory in Santa Ana, Cal., which is geared to a production of 72,000 canning jars daily.

The plant is the fourth in the United States operated by the Kerr interests. The first production unit consists of a 70-ton glass furnace and annealing lehrs. The Kerr Co.'s other plants are at Huntington, West Va., and Sand Springs, Okla. (Herr)

#### PHILADELPHIA, PA.

**2,100,000 Square Feet**

### MERCHANTS WAREHOUSE CO.

10 Chestnut St., Philadelphia 6 Phone: LOM. 8070

11 modern buildings in leading business sections. Served by all R.R.'s. Loading and unloading under cover. Storage-in-transit privileges. Goods of all kinds, bonded and free.

One of THE CHAIN OF TIDEWATER TERMINALS and Inland Warehouses

#### PITTSBURGH, PA.

### ED WERNER TRANSFER & STORAGE COMPANY

1917-19 Brownsville Road  
Pittsburgh, Penna.

Storage, Packing and Shipping

Member of National Furniture Warehousemen's Ass'n.  
Agent of Allied Van Lines, Inc.

#### PHILADELPHIA, PA.

BUELL G. MILLER, President

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BROAD & LEHIGH & BRANCHES  
Member P.M.T.A., C.F.M.A. of Pa.

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STORAGE COMPANY

2501 GERMANTOWN AVE., PHILA. 33

COMPLETE HOUSEHOLD  
GOODS SERVICE

Member: P.M.T.A., C.F.M.A., P.F.W.A.

Agents for United Van Lines, Inc.

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### TRANSFER & STORAGE CO.

STORAGE, PACKING, CRATING and SHIPPING

POOL CAR DISTRIBUTION

LONG DISTANCE HAULING

2748 West Liberty Ave., Pittsburgh 16, Pa.

Members of N.F.W.A.-A.T.A.-P.F.W.A.-P.M.T.A.

Agent for Allied Van Lines, Inc.

#### PITTSBURGH, PA.

### DUQUESNE WAREHOUSE CO.

Office: Duquesne Way and Barbeau St.

Merchandise Storage & Distribution

Members A. W. A.

#### PITTSBURGH, PA.

THOMAS WHITE, Owner and Manager

**2 WAREHOUSES**  
17th AND SMALLMAN STS.  
13th AND SMALLMAN STS.

QUARTER MILLION FEET OF SPACE

*In the Heart of  
Pittsburgh's  
Jobbing District*

STORAGE IN TRANSIT  
POOL CAR DISTRIBUTION  
COMPLETE TRUCKING FACILITIES  
PRR SIDINGS

Also operators of

WHITE MOTOR EXPRESS CO.

Established 1918

**WHITE TERMINAL  
COMPANY**

13th AND SMALLMAN STS.

## PENNSYLVANIA—PUERTO RICO

### SCRANTON, PA.

**R. F. POST**  
**DRAYMAN & STORAGE WAREHOUSE**  
 221 Vine St., Scranton 3  
 HOUSEHOLD STORAGE POOL CARS  
 MERCHANDISE STORAGE PACKING  
 LOCAL AND LONG DISTANCE MOVING  
 PRIVATE SIDING, D. L. & W. R. R.

### SCRANTON, PA.

**THE QUACKENBUSH WAREHOUSE CO.**  
 219 VINE STREET, SCRANTON 3  
 MERCHANDISE AND HOUSEHOLD GOODS  
 STORAGE POOL CAR DISTRIBUTION  
 D L & W and D & H Sidings  
 Represented by  
 ALLIED DISTRIBUTION INC. CHICAGO  
 NEW YORK 11 WEST 43RD ST. NEWARK 9-0040 1525 NEWBURY AVE. MILWAUKEE

### SHARON, PA.

**SHARON COAL & ICE CO.**  
 230 W. Budd St., Sharon, Pa.  
 Cold Storage—Merchandise—Household Goods  
 2 Warehouses with private sidings on Erie & P RR's  
 reciprocal switching. Loans on Stored Commodities.  
 Cold Storage for furs—Cold storage lockers—Quick Freeze  
 space.

### UNIONTOWN, PA.

H. D. RYAN—L. G. HOWARD, Proprietors

**KEYSTONE TRANSFER CO.**  
 CORNER BEESON BLVD. & PENN ST.  
 HOUSEHOLD GOODS PACKED, SHIPPED, STORED  
 LONG DISTANCE MOVING  
 Private Siding B. & O. R.R.

### WILKES-BARRE, PA.

**WILKES-BARRE STORAGE CO.**  
 General Storage and Distribution  
 Prompt and Efficient Service  
 12 Car Track Located on Lehigh Valley RR. Switches  
 Storage-in-Transit and Pool Cars  
 19 New Bennett St. Wilkes-Barre, Pa.

### WILLIAMSPORT, PA.

**WILLIAMSPORT STORAGE CO.**  
 FIREPROOF BUILDING—416 FRANKLIN STREET  
 P. R. R. SIDING  
 MERCHANDISE STORAGE AND DISTRIBUTION  
 HOUSEHOLD GOODS—DRAYAGE  
 IDEAL DISTRIBUTING POINT FOR CENTRAL PENNSYLVANIA

### SAN JUAN, P. R.

MEMBER AMERICAN WAREHOUSEMEN'S ASSOCIATION

**ALMACENES MARITIMOS**  
 (MARITIME WAREHOUSES)  
 11 WAREHOUSES IN SAN JUAN, P. R.  
 Complete warehouse and distribution service  
 Warehouses located adjacent to Steamship Piers  
 Lowest rate of Insurance  
 SERVICE—SAFETY—GUARANTEE  
**ALMACENES MARITIMOS**  
 MANUEL G. CASSERES, Managing Owner.  
 BOX 2770 SAN JUAN, P. R.

### Zone Number

Please send us your postal zone number so  
 your correct address can be given in your  
 ad and to those who inquire for it.—DandW.

## Watch Depreciation

(Continued from page 59)

### Maintenance and Repairs . . .

Wise business men always keep equipment in good repair because it depreciates at a lower rate. But today, this picture has undergone a radical change. Due to the difficulty of getting repair parts and manpower to provide adequate upkeep in many instances, users of rolling stock and other equipment may have to forego this expense for the duration or operate on short rations. As a result, their equipment will depreciate faster than heretofore, and, not having spent the money for upkeep, they cannot deduct for this expense on the income tax return and must pay tax on the "water."

Taxpayers often question this apparent inequality, contending that depreciation goes on in war and peace. If repairs are neglected when needed, they gang-up and take a relatively bigger toll sooner or later, or compel premature replacement.

Those who find themselves in this fox-hole may get relief from the carry-back provision in the 1942 revenue bill, which permits you to carry back an operating loss for two years. If the loss exceeds this time limitation, you're stuck with the leftover. The carry-back provision provides relief for those users of trucks and machinery who cannot get adequate maintenance these days, hence, find that

depreciation is taking a bigger toll than in prewar days.

Were the carry-back not permitted, users of equipment would have to pay higher taxes for the duration because they could not take deduction for adequate repairs and maintenance and when they eventually had to make the cumulative repairs in the postwar period, the expense might be so great that operations for the year of reconditioning would show a loss with no tax benefit.

### Profitable Serviceability . . .

Users who habitually make a practice of retaining equipment after it has been written off the books just because they do not want to invest in replacements never take cognizance of profitable serviceability. Typical of such was an executive who asked, "Why should we increase operating costs with depreciation charge-offs when our old equipment is in good shape?" This query is indicative of an erroneous conception of depreciation by those who dislike to replace old equipment, mechanically efficient, with new, because it means increased annual charges for wear, tear and obsolescence, or, as is sometimes the case, the old equipment in use carries no depreciation expense because it has been written down to scrap value in prior years.

Figure depreciation according to serviceable life or years of profitable use, not physical life. A machine's mechanical life often outlives its profitable ser-

viceability. If the depreciation charges are geared to mechanical life, which may be beyond serviceable life, the rates will be inadequate. In pre-war days, many concerns retained rolling stock because the units operated were in good condition mechanically but they were unprofitable to operate compared with more modern units equipped with greater speeds, easier handling in traffic and more body capacity.

It isn't how much mileage left in a truck that should guide your decision to buy a replacement but how much profit is in a truck compared with the profit possible with a new one. Remember that repairs, breakdowns and delays mount as equipment gets older. Pre-war analyses covering the operating costs of old trucks and new always showed that mileage expense on the new units was so substantially reduced that the depreciation charge on the new equipment and the interest on capital invested were more than absorbed. The same condition holds true today. If you can buy replacements, the purchase may pay dividends even though the existing equipment is in good condition mechanically. Use profitable serviceability as your guide.

### Forced Obsolescence . . .

Automobile manufacturers state that after the war there will be little change in mechanical design for a time because



PROVIDENCE, R. I.

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80-90 Dudley St.  
**FIREPROOF WAREHOUSE**  
Storage, Moving, Shipping  
Fleet of Long Distance Moving Vans  
Member National Furniture Warehousemen's Assn.  
Agent for Allied Van Lines, Inc.



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Storage all kinds of General Merchandise, Pool Car  
Distribution. Lowest Insurance.  
Trackage facilities 50 cars. Dockage facilities on  
deep water.  
Shipping directions South Providence, R. I.

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C. B. JENKINS, JR., Pres. L. E. McKAY, Mgr.

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Modern Concrete Warehouse. 100,000 Square Feet of Storage  
Space. Private Tracks Connecting with All Railroad and  
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**Charleston Warehouse and Forwarding Corp.**

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General merchandise and household goods  
storage.

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Pool Car Distribution. Private rail sidings.  
Sprinkler equipped warehouse.



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"The Heart of the Piedmont"

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GENERAL MERCHANDISE—H.H.G. STORAGE

Pool Car Distribution—Motor Truck Service

Low Insurance Rate

Private Siding



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Investment  
\$350,000

State Bonded

80,000 Sq. Ft.  
Floorspace

Fireproof, sprinklered building with private siding on  
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Labeling and Sorting. Distribution of Pool Cars. House-  
hold Goods Transferred. Refrigerated Truck Service.  
Owners and operators of Wilson Forwarding Co.  
Members of NFWA—MinnNWA—AWAM  
Agent for AVL

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135,000 square feet on Southern Railway tracks.

Equipped with Automatic Sprinkler

Insurance at 12c. per \$100.00

per annum.

Pool Cars distributed.

Household goods shipments  
solicited. Prompt remittances  
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Private R. R. siding Perfect service



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"Memphis Most Modern Warehouses"

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Local Delivery Service

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Pac. Private rail siding 9 car apt.

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ESTABLISHED 1894

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Merchandise storage, dependable service, free switching. Local cartage delivery.  
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Warehouse No. 1

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Storage (Messe.)—Pool Car Distribution—Local delivery service—Office Space.  
In the heart of the wholesale district and convenient to Rail, Truck and express  
terminals. Eight car railroad siding—(N.C.&S.T.L. and L.&N.)—Refrigerated switch-  
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WAREHOUSE.  
RAIL, TRUCK  
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WAREHOUSE STOCK and POOL CAR DISTRIBUTION

Automatic Sprinkler System—Centrally Located

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**Nashville Warehousing Co.**

P.O. Box 555

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POOL CAR DISTRIBUTION

FREE SWITCHING—CITY TRUCKING

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ESTABLISHED 1886

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STORAGE

Automatic Sprinklered—Spot Stock and Pool Car Distri-  
bution—Private Siding



Invest in the Future . . .

The sooner the war is over the better for  
everybody. Help win it. Buy war bonds  
regularly, and help end the war.

of the difficulty of re-tooling. Trucks and cars will approximate the mechanical make-up in existence now, but it is likely that body-types may be greatly improved. Consequently, users of present equipment, even in the profitable serviceability class, may be compelled to replace their rolling stock in order to compete successfully with those who buy new equipment when the war is over. This brings forced obsolescence into the picture. In other words, you will be compelled to replace rolling stock before it has been written off the books or served the estimated span of profitable serviceability, which had previously been set on the depreciation schedules.

The post-war period should bring to market new production and motor transportation equipment that may revolutionize operations for many concerns and those who expect to compete profitably after the war will have to modernize regardless of how efficient the existing equipment.

Forced obsolescence is hard to predict but it may give the war earnings of many companies a big wallop. It has always been a factor, more or less, but has never loomed as ominous as now. You should give forced obsolescence thought now. If it hits your bankroll on rolling stock or production equipment, it may take all the profit you thought you earned during the war, and more besides. The government recognizes forced or abnormal obsolescence, and, if

proved, may permit a deduction for it on the income tax return.

#### War Reserves . . .

To play safe with forced obsolescence and other wartime contingencies, such as re-converting from war to civilian production, some concerns are opening up war reserves, charging profits with a percentage of sales and crediting these reserves. Cases have been reported where such reserves ran as high as one per cent of sales. The percentage will vary with the business. At this writing, you cannot take this deduction on your income tax return but legislators are talking about permitting such deductions to take care of re-converting plants to civilian production and to eliminate other war "bugs," so it is possible that you may be permitted this consideration eventually.

Regardless, it is good business to set aside part of today's profits, particularly if above average, to take care of post-war operations, promotions, equipment replacements and reconditioning. However, a reserve written into the books is only a paper figure unless you make arrangements to set aside the actual cash or see that your working capital is big enough to handle such outlays out of current funds.

In the final analysis, remember that depreciation is only an estimate. There is no way to calculate it to the penny.

Other costs can be reduced to dollars and cents but not depreciation. I have never known a case where the depreciation charges at termination of the write-downs have equaled original cost on the books, whether or not salvage or trade-in value was considered. Nevertheless, care should be taken in setting a rate that will approximate wear and tear as accurately as possible, thus reducing the hazard of loss. Over-depreciation increases equipment expense and may increase your prices to customers above the average, killing sales. Under-depreciation tends to make selling prices too low for safety or it may mean payment of dividends out of capital.

#### Railway Takes Over Oakland Freight Hauling

The Oakland Terminal Railway, a new company recently organized by the Santa Fe and Western Pacific railroads as their jointly controlled affiliate, has now taken over all freight operations that were formerly conducted by the Oakland Terminal Railway Co., which was a local transportation company subsidiary. The new terminal line will serve the Oakland port of embarkation, the general depot of the U. S. Army, and industries in the harbor area.

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### TEXAS STORAGE COMPANY

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Beaumont, Texas



Merchandise and Household Goods  
Warehouse, Concrete Construction  
30,000 Sq. Ft. Distribution of Pool Cars  
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Agent for A.V.L. Member of N.F.W.A.—S.W.A.T.A.

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Located AT PORT SITE  
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Storage Distribution Drayage  
96,400 Sq. Ft. Sprinklered Low Insurance Rates  
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Specialists in

General Merchandise Storage—Pool Car Distribution

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Daily and overnight common carrier Motor Freight Service to Houston, San Antonio, Austin, Laredo and Rio Grande Valley, serving all intermediate points.  
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MERCHANDISE STORAGE—POOL CAR DISTRIBUTION  
Our modern Centrally located fireproof warehouse is completely equipped to serve you with over 750,000 square feet of merchandise & household goods storage space.  
MOVING—STORAGE—PACKING—SHIPPING



Since 1875 **BINYON-O'KEEFE** Fireproof Storage Co. Since 1875  
2201 LAWS ST., DALLAS 1  
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ESTABLISHED 1875

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Second Unit Santa Fe  
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Modern Fireproof  
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Office, Display,  
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and  
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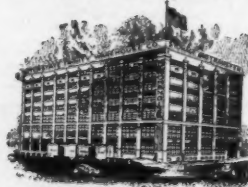
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H. & N. T. Motor Freight Line  
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A. W. A., N. F. W. A., American Chain  
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#### DALLAS, TEXAS

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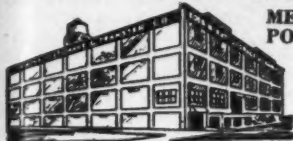
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EVERY ACCOUNT IS  
PERSONALLY SUPERVISED  
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Merchandise Storage  
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Office, Display and Ware-  
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Branch Office Facilities  
Ample room for Auto-  
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LOW INSURANCE RATES

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"Bankers of Merchandise"  
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Lowest Content Insurance Rate

Fireproof Storage of Household Goods, Autos  
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Private Trackage—T. & P. and So. Pac. Rys.  
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Goliad & Morin Sts.

Houston

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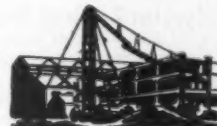
General Merchandise Storage

Pool Car Service

Fireproof Sprinklered Warehouses

Located in the heart of the wholesale district

# Factories on the Move...



**LOS ANGELES, CAL.**—Kinmont Mfg. Co., 5420 Santa Fe Ave., Vernon district, manufacturer, metal products, has plans for new 1-story machine shop, about 50 x 180 ft., at 5555 E. Slauson Ave., East Los Angeles, and will carry out erection with day labor. Estimated cost, over \$40,000, with equipment. Ralph A. Kinmont is head.

**OAKLAND, CAL.**—Cutter Laboratories, Inc., Berkeley, Cal., manufacturer, pharmaceuticals, drugs, etc., has contracted with Government for construction and operation of new plant at Oakland, for manufacture of new bacteria-killing drug, "Penicillin," for war service. It will comprise a main multi-story building with auxiliary structures, estimated to cost about \$600,000. Work will proceed at once. Financing will be provided by Defense Plant Corp., Washington, D. C., Federal agency.

**DENVER, COL.**—Carothers & Clark, recently organized, care of Walter H. Simon, 2088 Dahlia St., architect, have acquired 2-story and basement building on local site at 1909 Blake St., and will remodel and equip for new egg dehydrating plant. Work scheduled to pro-

ceed on building improvements at once. Architect noted is in charge.

**DENVER, COL.**—Tasty Foods Co., 1814 Market St., manufacturer, prepared food products, has recently acquired 2-story industrial building at Walnut and 26th Sts., and will remodel and equip for new dehydrating plant. Cost reported over \$45,000, with machinery.

**CHICAGO, ILL.**—Boyer Chemical Laboratory Co., 2700 S. Wabash Ave., manufacturer, cleaning compounds, preservatives, etc., has purchased local 3-story factory, exact location not as yet announced, and will improve and equip for new plant as soon as present leases expire.

**CHICAGO, ILL.**—Ralco Mfg. Co., 123 N. Albany Ave., manufacturer, electrical equipment, will build new 1-story warehouse, about 40 x 90 ft., at 3041-49 W. Lake St., and will equip for storage and distribution. Erection contract has been let.

**CHICAGO, ILL.**—Reynolds Metals Co., 2500 S. Third St., Louisville, Ky.,

manufacturer, light metal products, has purchased industrial property at Ashland Ave. and W. 74th St., here, comprising group of several 1- and multi-story buildings, for reported consideration of \$135,000. Company will remodel structures and equip for new branch plant for production of extruded aluminum and magnesium aircraft parts. Work scheduled to begin soon.

**HAMMOND, IND.**—Phelps-Dodge Copper Products Corp., 40 Wall St., New York, N. Y., and Phelps-Dodge Corp., parent organization, same address, will establish new plant here for extruded metal and magnesium products, recently referred to in these columns. Company has taken over large industrial property of Pullman Standard Car Mfg. Co. Buildings are being improved and modernized. Equipment will be installed for extensive output. Entire project is reported to cost \$12,000,000, with financing to be provided by Defense Plant Corp., Washington, D. C., Federal agency.

**CLINTON, IA.**—Pillsbury Feed Mills, Inc., Metropolitan Bldg., Minneapolis, Minn., subsidiary of Pillsbury Flour

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

D and W, October, 1943—115



Mills, Inc., same address, will remodel and equip a large building here for proposed new soy bean processing mill, previously referred to in these columns. Work on building is being placed under way and structure will be ready for equipment installation in near future. Project has a priority rating. Reported cost, \$80,000.

**BALTIMORE, MD.**—Revere Copper & Brass, Inc., 230 Park Ave., New York, N. Y., has contracted with Government for new plant in Maryland, exact location not announced but understood to be in this vicinity, where company now has branch works. It will comprise several large 1-story buildings, to be equipped for production of extruded aluminum and magnesium parts for aircraft service; also storage and distributing buildings and miscellaneous structures. Estimated cost, \$6,000,000, with financing provided by Defense Plant Corp., Washington, D. C., Federal agency. Work is scheduled to begin at early date.

**HAGERSTOWN, MD.**—Fairchild Aircraft Division, Fairchild Engine & Airplane Corp., here, has purchased two local factory properties, previously used

by Southern Shoe Co., and Eader Textile Corp., respectively, and will remodel and equip for expansion in local works. Executive offices of parent company are at 30 Rockefeller Plaza, New York, N. Y.

**BONDSDVILLE, MASS.**—Officials of Barrett Textile Corp., West Warren, Mass., operating a textile print mill, headed by Louis and Edward Endelson, have purchased former mill of Boston Duck Co., here, idle for a number of months, and will improve and equip for new fabric printing plant. Program will proceed at early date.

**SPRINGFIELD, MASS.**—Pederson Arms Co. has leased 1-story building at 157 Chestnut St., owned by Eastern States Land Co., and will remodel and improve at once. It will be equipped as a machine shop by first noted company.

**ESCANABA, MICH.**—Venus Foundation Garments, Inc., 123 N. Wacker Dr., Chicago, Ill., manufacturer, women's garments, has acquired 1-story factory on Third Ave., here, and will remodel and equip at once for new branch plant.

**PETOSKEY, MICH.**—Milkweed Floss Corp. or America, Inc., recently organized, has acquired former factory here of Preston Feather & Sons, and will remodel and equip for new plant for production of floss from milkweed pods under a special process. A 1-story addition will be erected, about 90 x 105 ft. Output will be used by Government, which will provide financing in amount of \$165,000 for project through Defense Plant Corp., Washington, D. C., Federal agency.

**MINNEAPOLIS, MINN.**—Durkee-Atwood Co., 215 N.E. Seventh St., manufacturer, chemical products, etc., will make alterations and improvements in 1-story building at 708 15th Ave., N.E., to be occupied for warehouse service.

**MINNEAPOLIS, MINN.**—Economy Crown Corp., 2424 E. Franklin Ave., manufacturer, metal bottle caps, etc., has taken over 2-story factory at 2601 E. Franklin Ave., and will modernize and equip for new plant.

**WINONA, MINN.**—Northwest Flax Industries, Inc., recently organized, John A. Johnson, president, has plans manu-

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##### Better Warehousing in HOUSTON

We operate a modern low insurance rate warehouse in the center of the wholesale, jobber, rail and truck terminal district. Most conveniently located for interior jobbers' trucks; well trained personnel; cooler space.

**HOUSTON CENTRAL WAREHOUSE CO.**  
Commerce and San Jacinto Houston, Texas

Represented by  
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO  
11 WEST 43RD ST. NEW YORK 36-0966 1525 NEWBERRY AVE. CHICAGO 33-5555

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##### Houston Terminal Warehouse & Cold Storage Company

701 No. SAN JACINTO ST., HOUSTON 2

General Storage Cold Storage U. S. Custom Bonded  
A. D. T. Service Pool Car Distribution  
Office Space Display Space Parking Space

Lowest Insurance Rate  
New York Representative Chicago Representative  
Phone Plaza 3-1235 Phone Harrison 1496

#### HOUSTON, TEXAS

##### AT HOUSTON

Receiving . . . . . also Wharfingers offering  
Weighing . . . . . complete Shipside Services with  
Sampling . . . . . berthing space for eight steamers.  
Warehousing . . . . .  
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##### HOUSTON WHARF COMPANY

(Formerly Long Reach Shipside Terminal)  
OWNED AND OPERATED BY GULF ATLANTIC WAREHOUSE CO.  
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Merchandise and Household Goods Storage

Pool Car Distribution

Sprinklered—A.D.T. Watchmen

Shipside and Uptown Warehouses

Operators—Houston Division

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1117 Vine St. Agents for Allied Van Lines, Inc.

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Bonded Warehouse

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Pool Car Service  
Sprinklered  
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Low Insurance Rate  
Private Siding on Southern  
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COMMERCIAL STORAGE—

OFFICE SPACE — PARKING SPACE

T. P. C. STORAGE & TRANSFER CO., INC.

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W. E. FAIN, Owner and Manager  
Established 1901

##### TEXAS WAREHOUSE COMPANY

Forty-two Years

Under Same Continuous Management

MERCHANDISE EXCLUSIVELY

Pool Car Distribution Sprinklered Throughout  
A.D.T. Supervised Service

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Agent for Allied Van Lines, Inc.

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MERCHANDISE STORAGE

Warehouses Sprinklered Throughout.

Supervised by A.D.T. Service.

SERVICE THAT COUNTS

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Merchandise Storage—Pool Car Distribution

Sprinklered—A.D.T. Watchmen

— U. S. Customs Bonded —

Office Space

New York Representatives:  
DISTRIBUTION SERVICE, INC.  
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DISTRIBUTION SERVICE, INC.  
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**Transfer and Storage Co., Inc.**

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Fireproof Warehouses

Merchandise & Household Goods Storage—Pool Car Distribution—  
Lift Van Service—30 car lengths of trackage.  
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**Merchandise Storage and Distribution**

Over 1,000,000 cubic feet reinforced Concrete Sprinklered Space  
Insurance Rate 11 Cents

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Salt Lake City, Utah

Represented by  
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New York—Chicago—San Francisco

SALT LAKE CITY, UTAH

Storage—Pool Car Distribution

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72,000 sq. ft. space. Reinforced concrete and brick. Dignified, accessible, and central location. U.P. spur with free switching from or to other lines. P-U&D service rail or truck. Systematic delivery service twice daily. 99% Co-ins. rate 19 1/4¢ per \$100.00. A.D.T. automatic burglar and fire protection. Office and desk space available.  
Member AWA—UWL—UWA—AWI



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**MERCHANTS**

**TRANSFER & STORAGE CO.**

Merchandise Household Goods

Complete Storage and Distribution Service

over 50 years of satisfactory service

Member of A.W.A.—N.F.W.A.—S.W.A.

SAN ANTONIO, TEXAS

**Muegge-Jenull Warehouse Co.**

BONDED FIREPROOF

POOL CAR DISTRIBUTORS  
STORAGE AND DRAYAGE

Dependable Service Since 1913

SAN ANTONIO, TEXAS

Agent for Allied Van Lines, Inc.

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HOUSEHOLD - MERCHAN-  
DISE - COLD STORAGE -  
CARTAGE

DISTRIBUTION  
INSURANCE RATE - - - 10¢

Members of 4 Leading Associations



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HOUSEHOLD AUTOMOBILE STORAGE MERCHANDISE

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MODERN SPRINKLER EQUIPPED WAREHOUSE  
50,000 SQUARE FEET PRIVATE RAIL SIDING  
Lowest Insurance Rate in Norfolk. Pool Car Distribution

WE SPECIALIZE IN MERCHANDISE STORAGE  
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AGENTS AERO MAYFLOWER TRANSIT COMPANY  
Member N.W.A. & S.W.A.



TYLER, TEXAS

**Tyler Warehouse and Storage Company**

Bonded under the Laws of Texas

General Storage and Distribution from the Center of East  
Texas. Specializing in Pool Cars Merchandise.

OGDEN, UTAH

MEMBER OF A.W.A.

**WESTERN GATEWAY STORAGE CO.**

GENERAL WAREHOUSING  
POOL CAR DISTRIBUTION  
MERCHANDISE AND COLD STORAGE

SALT LAKE CITY, UTAH

**CENTRAL WAREHOUSE**

Fireproof Sprinklered  
Insurance rate 18¢ Merchandise Storage. Pool Car Distribution.

Office Facilities.

Member A. W. A.



NORFOLK, VA.

Serving—Va. Beach, Ft. Monroe, Newport News, Williamsburg  
and Tidewater Virginia.

**Security Storage and Van Corp.**

530 FRONT STREET

Norfolk's Finest Fireproof Furniture Warehouse  
Motor Van & Lift Van Service  
Collections — Distribution  
Member NAT. F.W.A.—ALLIED VAN LINES

NORFOLK, VA.

Established 1892

**SOUTHGATE**  
**STORAGE COMPANY, Inc.**

239 Tazewell St., Norfolk 10

For economical storage and distribution  
you will want to know more about our  
individualized services. Our fireproof  
warehouses are in the Southgate Terminal,  
on the waterfront and in the center of  
Norfolk's wholesale district. Served by  
all rail, water and motor lines.



MEMBER:  
A.W.A.  
S.W.A.  
U.S.C. & G.

Write for Booklet— "7 POINT DISTRIBUTION"

# VIRGINIA—WASHINGTON—WEST VIRGINIA

## RICHMOND, VA.

64 Years of Uninterrupted and Expert Service

### BROOKS TRANSFER and STORAGE CO., Inc.

1224 W. Broad Street, Richmond 3, Va.

Three Fireproof Storage Warehouses—\$10,000 Cubic Feet Floor Space—Automatic Sprinkler System—Low Insurance Rates—Careful Attention to Storage—Packing and Shipping of Household Goods—Private Railroad Siding—Pool Car Distribution—Motor Van Service to All States—Freight Truck Line.

Member of N. F. W. A.—A. V. L.—A. T. A.

## RICHMOND, VA.

STORAGE  
HOUSEHOLD  
GOODS  
OBJECTS of ART  
FURS - RUGS  
VALUABLES

### THE W. FRED. RICHARDSON Security Storage Corporation

Main at Belvidere, Richmond 20  
PACKING FOR SHIPMENT

Local and Long Distance Movements

ESTABLISHED 1887

Agent for Allied Van Lines, Inc.

## RICHMOND, VA.

160,000 Sq. Ft. Space

### VIRGINIA BONDED WAREHOUSE CORPORATION

ESTABLISHED 1908 1709 E. CARY ST.

U. S. BONDED & PUBLIC WAREHOUSES  
MERCHANDISE STORAGE & DISTRIBUTION  
INSURANCE RATES 20c PER \$100 PER YEAR

Member A.W.A.

BUILDINGS SPRINKLERED

## ROANOKE, VA.



### H. L. LAWSON & SON

Finance and Storage

Pool Car Distributors  
General Merchandise Storage

421-25 EAST CAMPBELL AVE.  
ROANOKE, VIRGINIA

## ROANOKE, VA.

### ROANOKE PUBLIC WAREHOUSE

Capacity 500 Cars

Private Railroad Siding



Automatic Sprinkler

Accurate Accounting

We make a Specialty of Storage and Pool Car Distribution  
for Agents, Brokers and General Merchandise Houses.

Member of American Chain of Warehouses

## ABERDEEN, WASH.

Established 1916

### A. A. STAR TRANSFER CO., Inc.

321 W. STATE ST.

Merchandise & Household Goods Storage



Private siding. Pool car distribution. Consign  
shipments via any railroad. Open yard storage.  
Long distance moving.

Member of A.W.A.—May.W.A.



## SEATTLE, WASH.

### EYRES TRANSFER & WAREHOUSE CO.

A Seattle Institution—54 years of outstanding service

Cartage — Distribution — Storage

Highest financial rating; new fireproof, A.D.T. sprinklered  
buildings; lowest insurance rate (10.2c); modern equipment.  
"The Shippers' Open Door to Alaska and the Orient"

## SEATTLE, WASH.

### LET LYON GUARD YOUR GOODS



Carload  
Distributors

PORTLAND, Ore. SEATTLE  
231 N. W. Westover Rd. 2030 Dexter Ave.  
Wallace Hollingsworth, Mgr. Dean McLean, Mgr.

ing for new local mill for processing  
flax straw for use in rayon and fiber  
manufacture. It will comprise main 1-  
story mill, 110 x 130 ft., with warehouse,  
50 x 130 ft., power house and miscel-  
laneous structures. Estimated cost,  
about \$215,000, with machinery. Output  
will be used by Government, which will  
provide financing in amount noted  
through Defense Plant Corp., Washing-  
ton, D. C., Federal agency.

ORD, NEB.—Saunders Mills, Inc.,  
Eggleston Ave., Toledo, O., operating  
feed mill, etc., plans new alfalfa mill in  
this vicinity, consisting of main multi-  
story building and several auxiliary  
structures, reported to cost \$50,000, with  
equipment.

CLIFTON, N. J.—Industrial Research  
Laboratories, 229 Central Ave., Passaic,  
N. J., have leased 1-story building on  
Kingsland St., Clifton, totaling about  
10,000 sq. ft. of floor space, and will im-  
prove and equip for plant.

MILLTOWN, N. J.—Mack Mfg. Co.,  
97 Jersey Ave., New Brunswick, N. J.,  
manufacturer, motor trucks and parts,  
has leased part of former plant of  
Michelin Tire Co., here, consisting of 1-  
story building and ground floors of two  
other structures, aggregating 40,000 sq.  
ft. of floor space, and will occupy for  
expansion in storage and distributing  
department. Equipment will be installed  
at once.

NEWARK, N. J.—Breeze Corpora-  
tions, Inc., 41 S. Sixth St., manufac-

turer, aircraft and automotive parts, has  
leased industrial building at 35-47 Sus-  
sex Ave., totaling about 26,000 sq. ft. of  
floor space, and will equip for expansion.  
Company will take immediate possession.

NEWARK, N. J.—Seaboard Metal  
Products Co., 212 Wright St., manufac-  
turer, tanks, cabinets and other metal  
containers, has purchased 1-story fac-  
tory at 189-95 Frelinghuysen Ave., to-  
taling about 12,000 sq. ft. of floor space,  
and will improve and occupy for plant.  
Company will concentrate production at  
new location, removing three local plants  
on Wright, Emmett and Mulberry Sts.,  
to that point.

NEWARK, N. J.—S. Smidt Co., Pea-  
body, Mass., manufacturer, plastic prod-  
ucts, has leased space in factory at Ave.  
B and Miller St., here, totaling about  
12,000 sq. ft. of floor space, and will  
equip at once for new branch plant.

BROOKLYN, N. Y.—Paper Novelty  
Mfg. Co., 505 Carroll St., has leased  
space in industrial building at 19 Rock-  
well Pl., and will occupy for expansion.

LONG ISLAND CITY, N. Y.—Mon-  
roe Sander Corp., 10-18 46th Ave., man-  
ufacturer, paints, varnishes, lacquers,  
etc., has leased additional space in ad-  
joining building at 10-12 46th Ave., and  
will equip for expansion.

MASPETH, L. I., N. Y.—Berger Ma-  
chine Co., 540 E. 20th St., New York,  
manufacturer, metal stampings, etc., has  
purchased 2-story factory at 74-16

Grand Ave., here, approximating 70,000  
sq. ft. of floor space, and will take im-  
mediate possession. Building will be  
modernized and equipped for new plant.  
It is understood that present works at  
first noted address will be removed to  
new location when factory is ready for  
occupancy; additional equipment will be  
installed for increased capacity.

NEW YORK, N. Y.—Robert Wilson  
Paper Corp., 90 White St., commercial  
paper products, has taken title to 7-  
story building at 502-4 West 30th St.,  
recently acquired, totaling about 50,000  
sq. ft. of floor space, and will occupy  
for business, providing large increase in  
storage and distributing department,  
and other divisions. Company has sold  
2-story building at first mentioned loca-  
tion.

THOMSON, N. Y.—A-N-J Corru-  
gated Board Corp., Lowell, Mass., man-  
ufacturer, paper board products, has  
acquired former corrugated board mill  
here, used by Iroquois Paper Co., and  
will remodel and improve for new main  
mill. Present mill equipment will be re-  
moved and new machinery installed for  
increased capacity. Garza Brothers,  
Monterrey, N. L., Mexico, operating a  
local paper mill, has purchased existing  
machinery, including two paper-making  
machines, pulp grinders, etc., which will  
be dismantled for shipment to that place.  
It is understood that this work will be  
carried out under direction of Sandy  
Hill Iron & Brass Works, Hudson Falls,  
N. Y., manufacturer of paper mill ma-  
chinery, rolls, etc., which has been et-



gaged by Garza Brothers, noted, to design and equip a new mill at Monterrey to manufacture kraft paper stock. Sandy Hill company also will build considerable machinery for shipment to mill site.

**BOONE, N. C.**—Baker-Cammack Hosiery Mills, Inc., Burlington, N. C., manufacturer, men's half-hose, has leased building at Boone, and will improve for new branch mill. Knitting machinery and auxiliary equipment will be installed for initial working force of about 90 persons.

**CHARLOTTE, N. C.**—Illinois Shade Cloth Co., Chicago Heights, Ill., has acquired 1-story factory at 216-18 College St., here, and will improve and equip at once for new branch plant.

**CINCINNATI, O.**—Steel Materials Corp., 17260 Gable St., Detroit, Mich., manufacturer, steel building specialties, will remodel and improve factory on Elmwood Pl. and B. & O. R.R., near city limits, here, to be equipped as a new branch plant. Cost reported over \$100,000.

**CLEVELAND, O.**—John L. Frazier & Sons Co., 1564 Taylor Rd., steel products, has purchased property on E. 22nd St., and will use as site for new 1-story warehouse. Cost reported over \$35,000.

**COLUMBUS, O.**—Robinson-Houchin Optical Co., 2525 N. High St., manufacturer, lenses and other optical goods, has acquired 1-story factory at 79 Thurman St., and will remodel and improve for

## WPB Pledges Parts in '44 For All Essential Cars

The War Production Board has assured America's 30,000,000 motorists that sufficient new and reconditioned parts will be made available to keep the nation's essential cars rolling through 1944.

Even the country's 5,000,000 vehicles 10 years and older, R. L. Vaniman, director, Automotive Division, WPB said, have been provided for in the parts replacement program. "To evaluate properly the job done," Mr. Vaniman said, "it must be realized that the motor industry during the month of June produced at the annual rate of \$8,700,000,000 worth of war production. In May the figure was \$8,467,200,000 and in April \$8,064,000,000.

"When you consider that in the best peacetime year the automotive industry ever enjoyed, it produced \$3,702,633,023 in factory sales and wholesale value of autos, trucks and busses then you can start to realize the enormous job that has been accomplished.

"But to this already swollen production must be added the production of over \$400,000,000 worth of new parts per annum for America's motor cars, on top of the already gigantic flow of military goods."

new plant. Work will proceed at once.

**NEW PHILADELPHIA, O.**—West-

inghouse Electric & Mfg. Co., East Pittsburgh, Pa., has acquired former steel plate mill here of American Sheet & Tin Plate Co., comprising a large group of 1-story buildings, idle for a number of years. Plant will be modernized and improved, and equipped for new branch works, with machinery and facilities for employment of about 1000 persons. It is expected to have plant ready for service in December.

**TOLEDO, O.**—Sinclair Refining Co., 1435 Miami St., has purchased tract of about 75 acres on Maumee River, formerly used by Craig Oil Co., and will occupy for new bulk oil storage and distributing terminal. A number of warehouses will be built, with storage tanks, pumping station and other facilities. Cost is estimated over \$1,000,000, with equipment. Project has a priority rating and work will begin soon. Executive offices of company are at 630 Fifth Ave., New York, N. Y.

**BRISTOL, R. I.**—Bristol Lace Works, Wood St., manufacturer, camouflage and other netting for military service, plans new 1-story mill, about 50 x 160 ft., with L-extension, 22 x 87 ft., on Bay View Ave., where site has been selected, reported to cost over \$60,000, with equipment. A priority rating is being secured and erection will be placed under way this fall. Barker & Turoff, Grosvenor Building, Providence, R. I., are engineers. Bristol company is now occupying leased space in factory of United States Rubber Co., first noted address, and will remove plant to new location when building is ready.

### SEATTLE, WASH.

J. R. GOODFELLOW, Pres.

#### OLYMPIC WAREHOUSE & COLD STORAGE CO.

##### MERCHANDISE STORAGE & DISTRIBUTION

1203 Western Avenue Seattle, Wash.  
Cold Storage—Dry Storage—Rentals—Pool Car Distribution—Office Rentals  
Fireproof, brick const.; Sprinkler system; Insurance rate: 12.5c. Siding connects with all rail lines.

Bonded U. S. Customs; State License No. 2.  
Member of A.W.A. (C.S.) Wash. State Whsmn. Assoc.

### SPOKANE, WASH.

The **SPOKANE TRANSFER & STORAGE CO.**  
308-316 PACIFIC AVE.  
THE INLAND EMPIRE'S LARGEST DISTRIBUTORS  
MEMBERS: AWA·ACW·WSWA

### SEATTLE, WASH.

Lloyd X. Coder, Pres.-Mgr.

Est. 1919

#### SYSTEM Transfer & Storage Co.

2601-11 Second Avenue, Seattle 1

Warehousemen & Distributors of  
General Merchandise and Household Goods  
Office and Desk Space—Low Insurance Rates  
Member—A.W.A.—W.S.W.A.—N.F.W.A.—S.T.O.A.

### TACOMA, WASH.

#### Pacific Storage and Transfer Co.

10th & Broadway, Tacoma 2

Drayage Storage Distribution

Forward Stop in Transit and Pool Cars in Our Care

Located in Center of Wholesale District

Nearest Distributing Point

(To) Fort Lewis, Camp Murray, McChord Field

Member AWA—ACW—Wash. State Assoc.

### SEATTLE, WASH.

#### TAYLOR-EDWARDS Warehouse & Transfer Co., Inc.

Free switching service—Low Insurance rates—A.D.T. Service,  
Associated with leading warehouses through

DISTRIBUTION SERVICE, INC.

New York

Chicago

San Francisco

Members of—American Warehousemen's Assn.; Washington State  
Warehousemen's Assn.

### TACOMA, WASH.

#### TERMINAL WAREHOUSES, INC.

MDSE. WAREHOUSING and DISTRIBUTION

Concrete and Steel Warehouse located on N.P.R.R.

Tracks. Close to all Railway and Motor Freight

Terminals. Special Lockers for Salesmen's Samples.

Swift and Frequent Service to Fort Lewis, McChord

Field and Bremerton Navy Yard

P. O. BOX 1157 — TACOMA, Wash.

### SEATTLE, WASH.

Post graduates in moving personnel

#### SEATTLE TERMINALS UNIVERSITY WAREHOUSE, INC.

1017 EAST 40TH STREET, SEATTLE 5

Exclusive agent for Marflow vans. Seattle's finest, most modern  
warehouse for the handling of household goods and personal  
valuables. Located in Seattle's fast-growing University district.  
Serving Sand Point Naval Air Base.

R. G. CULBERTSON, President

WM. TELL LAUBE, JR., Sec.-Treasurer

### HUNTINGTON, W. VA.

Every facility for you and your patrons'  
convenience to secure your share of this  
Five Hundred Million Dollar market is  
available through

THE W. J. MAIER STORAGE COMPANY

## WISCONSIN—CANADA

### APPLETON, WIS.

Owner, Mrs. E. H. Buchert  
Established 1894



**BUCHERT TRANSFER LINE**  
500 North Superior St.  
Merchandise and Household Goods Storage  
Two Furniture Warehouses  
Motor Freight Terminal for  
Royal Transit Inc., Pope Bros. R. T. Co.  
Wesley Freight Line, Steffe Freight Line  
Chicago Northwestern siding, free switching  
Member May.W.A.

### APPLETON, WIS.

Owner, Harry H. Long

Est. 1920

**HARRY H. LONG MOVING & STORAGE**  
MERCHANDISE - HOUSEHOLD GOODS - MOTOR FREIGHT



Pool Car Distribution Sales Representation  
Brick building equipped for economical storage and  
distribution. Reached by C&NW—Soo-CM&STP.  
Motor Freight Terminal Members of WisWa—N.F.W.A.  
115 So. Walnut St.



**AMERICAN WAREHOUSEMEN'S ASSOCIATION**

Established 1903

**LEICHT TRANSFER & STORAGE CO.**

Main Office:

New York Office:

Marinette Office:

123 So. Broadway  
Green Bay, Wis.

Interlake Terminals, Inc.  
271 Madison Ave.

1720 Pierce St.  
Marinette, Wis.



Merchandise Storage  
Pool Car Distribution  
Transit Storage  
Household Goods Storage  
Heated—Unheated—Yard  
Storage  
Waterfront Facilities  
Stevedore Services  
Complete local and over-the-road truck services with 70 units  
of all types of equipment, including low-bed trailers, winches  
and cranes.  
Aero-Mayflower moving and storage.  
Inquiries invited

### MADISON, WIS.

LOW INSURANCE RATE

**CENTRAL**  
STORAGE AND WAREHOUSE COMPANY

COLD STORAGE  
DRY STORAGE  
FREEZER STORAGE

612 W. Main St., Madison 3

### MILWAUKEE, WIS.

**ATLAS STORAGE CO.**

MILWAUKEE'S ONLY DOCK WAREHOUSE  
ON JOINT TRACKS CM&STP&RR AND C&NWRY

647 W. VIRGINIA ST.

MILWAUKEE, WIS.

— UNEXCELLED —

WAREHOUSING AND DISTRIBUTION FACILITIES  
POOL CAR DISTRIBUTION - STORAGE IN TRANSIT

— SPECIAL —

FACILITIES FOR DRUMMING BULK OILS FROM  
TANK CARS

Represented by  
DISTRIBUTION SERVICE, INC.  
New York—Chicago—San Francisco

### MILWAUKEE, WIS.

**LINCOLN**

**FIREPROOF WAREHOUSE CO.**

WAREHOUSE SERVICE | RAILROAD SIDINGS  
OF EVERY | AND  
DESCRIPTION | DOCKING FACILITIES  
LOCATED IN HEART OF BUSINESS DISTRICT  
OFFICES: 206 W. HIGHLAND AVE.  
Member of A.W.A.—W.W.A.—N.F.W.A.

## Government Control Of Warehouses

(Continued from page 108)

of storage. There would be nothing to prevent many of the largest storers of merchandise from operating their own private warehouses in resentment against the industry for having placed itself under regulations which will be burdensome to warehouseman and storer alike.

One of the chief objections to control is the fact that every man in business hopes that sooner or later he will be able, through his own initiative and ability, to expand his business and that his son will have the same opportunity. However, if we place the millstone of regulation about our necks this right is taken away from us as well as our right to adjust our prices upward or downward to meet the needs of our business.

Bear in mind that the requirements for reporting and for compliance with regulatory provisions covering tariffs, finances and other details would involve a considerable amount of work and expense for which the warehouseman would not be recompensed.

It is also well to remember that regulation is not something we can put on or take off like a coat. If we ask for it now we can expect to live under it the rest of our business lives, and not be able to get rid of it when we find that

the dark future which some of us feared, has not materialized.

At a meeting of members of the Warehousemen's Assn. of the Port of New York, Sept. 16, the question of Federal regulation for the warehouse industry was thoroughly and exhaustively discussed. The vote taken showed the members overwhelmingly opposed to government control. Many prominent members of the industry throughout the country, both in dry storage and cold storage have expressed themselves as unalterably opposed to the proposed regulation and it is fair to assume that they will take the necessary action to assure the defeat of this unfortunate movement.

## Highway Truce Extended In Colorado Controversy

Trucks will continue to roll on Colorado highways with all the loads they can carry pending further efforts to solve the controversy over overweight loads. A truce scheduled to expire at midnight Sept. 4, under which heavy loads have been moving without imposition of extra fees demanded by the State Highway Department, has been indefinitely extended to pave the way for further negotiation.

"Colorado must move all the war freight possible," Governor Vivian said. "I have agreed not to enforce the state

law until conferences with Federal officials are completed."

Henry S. Sherman, chairman of the Public Utilities Commission, has recommended weight limits be raised from 18,000 lb. prescribed by state law to 22,000 lb., as proposed by the truckers.

Charles D. Vail, state highway engineer, said he did not believe there should be any compromise if Colorado's highways are to be maintained. (Alexander).

## Expedited Freights Halted by ICC

The operation of special expedited freight trains which takes precedence over regular traffic has been ordered stopped by the ICC. at the request of the ODT. and became effective Aug. 27.

ODT. officials explained that recently some railroads, particularly those serving the West Coast, have been running expedited freight trains which are operated on virtually passenger train schedules. These trains, which carry war materials, are operated under tariffs which call for an extra premium payment for the faster service.

The operation of these fast freight trains, the ODT pointed out, tends to cause congestion in the terminals and slows down all freight. Moreover, such an operating practice calls for an increased use of motive power and men.

## Semi-Live Skid and Jack

(Continued from page 56)

tion of orders, for production handling, and anywhere the principle of the hand-lift truck and skid system can be used, as it provides another system to keep materials off the floor and to reduce the number of handlings.

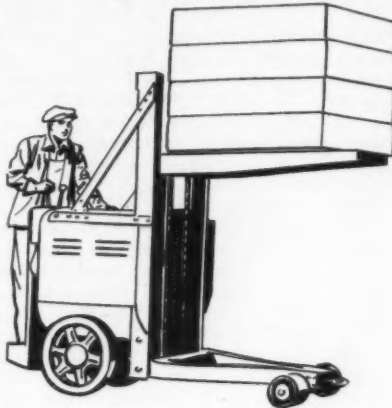
## Elevating Platform Truck (High Lift)

**Definition**—A completely powered-operated lift truck, on which the load is raised in front of vertical masts, for high lifting and the truck moved by mechanical power, the load being supported on skids or platforms.

**Description**—The elevating platform truck of the high lift type is constructed with the forward wheels located under the lifting platform, and attached to the main frame. The rear wheels which are larger are the drive wheels, and are also mounted directly on the main frame. A second framework is incorporated in the truck and arranged with an elevating

mechanism, operating in between vertical masts, so that when the truck platform is placed under the loaded skid, and the power is applied to the lifting mechanism, the platform (second framework) raises the skid and the load from

High Lift Platform Truck



the floor and holds it in this position for transportation and is also able to raise the load to different elevations for tiering, loading to machines, etc. Lowering is done mechanically either through chains, cable, or hydraulic systems. These trucks are powered either by gasoline, storage battery, or gas-electric power units, and are generally equipped with a drive motor for propulsion and a separate motor or hydraulic system for elevating the truck platform. These platforms are built in various sizes, and in elevations from 1½ in. to 23 in. above the ground in lowered position. They have various heights of lifts, depending upon the capacity and the construction of the vertical uprights, as to whether they are rigid or telescoping. They are built in capacities from 2,000 lb. to 60,000 lb., and operate at various speeds.

**Application**—Elevating high lift platform trucks should always be used in conjunction with some types of skid platform, of which there are a wide variety known as dead skids, semi-live skids, live skids, etc. These trucks can be operated interchangeably, with hand lift trucks and skids, or low lift ele-

(Continued on page 122)

### MILWAUKEE, WIS.

**HANSEN STORAGE CO.**  
Largest in Wisconsin  
**18 Warehouses**  
A.D.T. Service

Specializing in—  
Merchandise Distribution and Complete Branch House Services  
**TRACK CAPACITY FOR 50 CARLOADS**  
DEPENDABLE EXPERT QUICK SERVICE

ESTABLISHED 30 YEARS  
**850 Foot Dock**

### SHEBOYGAN, WIS.

**SHEBOYGAN**  
Warehouse & Forwarding Co.  
A Merchants & Manufacturers Warehouse  
11th and Illinois Ave. Sheboygan, Wis.  
Member of May. W.A. Wis. W.A.

MEMBER  
NATL. WAREHOUSE ASSOCIATION

### TORONTO, ONT.

**M. A. RAWLINSON, Pres. & Gen. Mgr.**  
**M. RAWLINSON, Ltd.**  
Established 1885  
610 YONGE ST.  
Seven Buildings to Meet All Requirements for Modern Storage and Distribution  
Customs Bonded. Pool Car Distribution. Household Goods Moved, Packed, Shipped and Stored.  
Members of CanS&T—NFWA—BAIFR—FWRA—TC&W—ALLIED VAN LINES

### MILWAUKEE, WIS.

**NATIONAL TERMINALS CORPORATION**  
954 SO. WATER STREET, MILWAUKEE 4  
Tel. Mitchell 5644

Milwaukee's most modern and best located Waterfront Warehouse. Automobile storage. Warehousing on unit basis for spot stocks. Storage "in transit". Pool car distribution, Customs Bonded.  
Member of A.W.A. & W.W.A.

### MILWAUKEE, WIS.

**National Warehouse Corporation**  
"Milwaukee's Finest"  
— STATE BONDED —  
EVERY CONCEIVABLE WAREHOUSE & DISTRIBUTION SERVICE AFFORDED  
A.D.T. Service  
468 E. Bruce St.  
C. & N.W.R.R. Siding

### MILWAUKEE, WIS.

**TERMINAL STORAGE CO.**  
100-112 W. Seeboth St. — Phone Marquette 7091  
Milwaukee, Wisconsin  
Cooler, Freezer and General Merchandise Storage  
Deep Water Dock, Private Siding  
on C.M.St.P. & P. R.R.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

### TORONTO, ONTARIO

**TERMINAL WAREHOUSES LIMITED**  
Located on Toronto's Harbour Front in the heart of Industrial Ontario  
**COMPLETE MODERN STORAGE AND DISTRIBUTION FACILITIES**  
Dry Storage Cold Storage Bonded Storage  
Office and Light Manufacturing Space Lowest Insurance  
Field Warehousing

### MONTREAL, QUE.

**St. LAWRENCE WAREHOUSE INC.**  
1-VAN HORNE AVENUE, MONTREAL, CANADA  
200,000 SQ. FT. OF MODERN FIREPROOF SPACE  
LOCATED IN THE EXACT CENTER OF THE CITY  
OF MONTREAL  
Canadian Customs Bond. Private Siding—8 Car Capacity—Free Switching—All Railroad Connections  
New York Representative: Frank J. Tully  
277 Broadway, New York City. Telephone Worth 2-8438

### MONTREAL, QUEBEC

Established 1908  
W. G. KENWOOD, Pres. & Man. Dir.  
**Westmount Transfer & Storage Ltd.**  
205 Olivier Ave., Westmount, P. Q.  
LOCAL AND LONG DISTANCE MOVERS  
Private Room System for Storage  
**CRATING, PACKING and SHIPPING**  
Charges Collected and Promptly Remitted  
Member: N. F. W. A., C. B. & T. A.

D and W, October, 1943—121



# War-Time Strains and Post-War Stresses In the American Trucking Industry

(Continued from page 49)

eral others who are considering something along those lines.

Proponents of this method of developing power state that two small motors and the fittings and power line to go with them will weigh as much as half a ton less than one large motor of equivalent horsepower with accessories.

Another factor, however, which is more important than weight is the economy and efficiency of the dual motor units. On level running, only one motor needs to be used, thus cutting the fuel consumption practically in half. The additional motor can be cut in to give flexibility, speed and hill-climbing ability, thus reducing time enroute, and saving wear and tear on low-gear operations. In the matter of repairs and road failures, time would be saved as in the case of a road failure of one motor the vehicle can always come in on the remaining motor.

Another development which we may look forward to is the possibility of automatic gear shifts being adapted to trucks. It is of course well known that considerable progress has been made in this direction with passenger cars already. Proper functioning of automatic shifts would not only be a factor in reducing running time, but would also reduce wear and tear on the transmission itself.

The new lighter metals developed for war-time use may promote much saving in weight in body and chassis construction. Use of these lighter metals may be likewise extended to other parts of the vehicle. Experiments for instance made with the use of aluminum in a rear axle assembly shows savings of from forty to fifty per cent of the axle assembly weight. One engineer for a aluminum company recently estimated that the aluminum parts that could be put into a truck axle assembly would save 695 lb.

What this saving in weight means can be seen from the fact that on an average a reduction of one ton in the weight of a vehicle would so increase pay load that it would yield on each average unit approximately 70,000 additional ton miles of transportation per year.

One of the post-war developments that will bear close watching and be most interesting will be the natural affinity of the airplane and the truck for high-speed transportation.

About one dozen motor carriers have already filed for rights to enter the airplane field. Senator Wheeler of Montana and Senator Clark of Missouri have been rather outspoken in Congress, favoring legislation that would keep carriers now in surface transportation out of the aviation field. What the outcome will be, of course, remains to be seen.

At the same time those airlines now

in operation have, over the past year or more, exhibited a keen interest in tying their operations in closely with motor carriers, to afford them adequate gathering and distributing service. Our organization has tried to be as helpful as possible in furnishing information of this nature to the airlines in response to their request.

How great the growth of freight transportation by air will be remains to be seen. Most of the heads of the larger airlines have not indicated that the volume carried would be very great when compared with the total tonnage moved in this country. They feel that high operating costs would limit the use of the plane to such an extent that its impact on the total tonnage moved would be very low.

Then again, so many of the fast movements made by truck are of an over-night nature and little would be saved by substituting plane service in those cases. Even on longer hauls the time element would not show too great differences between plane and truck up to certain limits, and it is within those limits that in normal times that the

great volume of the country's merchandise traffic moves.

Of course, this is the outlook of the people who are in the business today and who may be thinking of past and present performance as a guide to the future. It may be that one of these young kids, now captain on a bomber, not knowing that the thing cannot be done, may be just the fellow to open the eyes of the world to plane transportation in the future.

This leads me to one more thing. This industry of the motor carriers has a wonderful future before it. It can assure that future if it does not rest on its oars. It must look ahead and take advantage of every opportunity that presents itself.

## Elevating Platform Truck

(Continued from page 121)

vating platform trucks, providing the skids are designed with sufficient clearance for the power truck to run under them. The principle of the high lift elevating platform truck is the same as the hand lift truck or the low lift elevating platform truck, that is, to keep material off the floor and to reduce the number of handlings. On some special operations, the platform of these trucks has been equipped with rollers, such as gravity roller conveyors, or with auxiliary power-driven chain conveyors for bringing loads on to the platform which are not mounted on skids. This is particularly true in the handling of large dies, and on similar handling operations. On the standard type elevating platform truck the equipment is best suited for short hauls and medium long hauls, operating most efficiently on movements not in excess of 300 ft., unless the truck is designed primarily for some particular handling operation. This type of truck is particularly advantageous in production operations, or in the movement of materials where tiering, lifting, or stacking is required.

## Legal Answers

(Continued from page 60)

law requires of the warehouseman only what is termed slight diligence, and holds him answerable only for gross negligence. (2) If the bailment is for the sole benefit of the warehouseman, great diligence is required, and he is responsible for slight neglect. (3) If the bailment is for the mutual benefit of the parties, ordinary diligence is demanded, and the warehouseman is liable accordingly.

Therefore, you are liable only if the owner of the goods proves that the theft resulted from gross negligence of yourself or employees.

## NEW WOOL WAREHOUSE

A Street Wool Warehouse, Inc., 318 Summer St., Boston, has been incorporated as a warehouse for wool storage, with a capital stock of \$10,000. George E. Best is president, F. J. Leigh Moore, 1457 Beacon St., Waban, treasurer, and Lillian D. Curry, clerk. (Wellington)

## RED CORNERS



(Courtesy General Electric Co.)

Applying fire-engine red markings so simple that native porters anywhere in the world can be instructed which crates to assemble at a given point, Ralph Marshall marks red corners on a crate for overseas shipment from a General Electric plant. The crate contains a rotor which, when assembled with the contents of three other crates, will form a 700-kilowatt generator to supply power for war. The inverted "E" is the insignia of the U. S. Army Engineers Corps, while the legend, "Iron Engineer," and other markings are used as an export code for overseas shipment. Each branch of the service has its own color markings.